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Galaxy

SCIENCE FICTION

MAGAZINE



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THE MYTH OF THE LIGHT-BARRIER

THE 1970's has been a decade in which every physical and spiritual boundary has drawn progressively inward until finally hope itself seems threatened with extinction. This, more than any other reason, is why, while occupying this chair, I have consistently sought out and tried to promulgate the overlooked positive factor, the factor that implies that maybe we have a chance after all—that maybe the deck is not inherently rigged against us. That maybe, just maybe, we have a destiny worth having.

To this end I now offer the thought that the speed of light as limiting velocity is not a "barrier" that will keep the stars forever from our grasp, but is instead the guarantor of future freedom—from persecution or benevolent interference!—for those who will someday seek their fortunes beyond the confines of the Solar System.

Consider. At relativistic velocities time "slows down" as compared to the Universe at large. (Most sf-oriented persons are at least vaguely aware of the implications of Relativity Theory—for those who are not, I heartily recommend *TAU ZERO*, by Poul Anderson, as an entertaining and indeed inspiring way of rectifying this omission.) What most people—even sf people—seem not to be aware of is how *much* time slows down. At one gravity acceleration it would take about twenty years to reach the center of the Milky Way.

Note that I do not say it would *seem* to take twenty years, but that it *would* take twenty years. Of course the Universe will have aged 100,000 years or so, but that's another matter. A paradox? If so, a relativistic one; the single most fundamental tenet of Einstein's theory is that all frames of reference are equally valid—including the ship-board one.

And that's the point. Given a one-gravity, constant-acceleration space-vehicle plus a complete indifference to point of origin, you can go anywhere and do anything. You can even be free. Because anybody who might have an inclination to tamper with your liberty (unless you were foolish enough to bring him along) will have been dust long before you arrive at your destination. Blue meanies included. Freedom!

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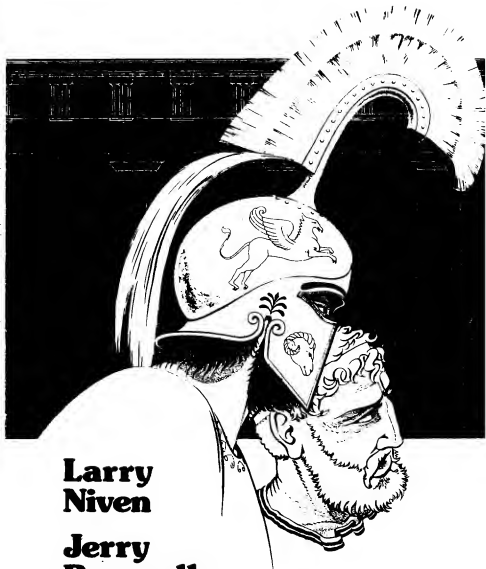
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INFERNO



Welcome to Infernoland!

I THOUGHT ABOUT BEING DEAD.

I could remember every silly detail of that silly last performance. I was dead at the end of it. But how could I think about being dead if I had died?

I thought about that, too, after I

stopped having hysterics. There was plenty of time to think.

Call me Allen Carpentier. It's the name I wrote under, and someone will remember it. I was one of the best known science fiction writers in the world, and I had a lot of

fans. My stories weren't the kind that win awards, but they entertained, and I had written a lot of them. The fans all knew me. Someone ought to remember me.

It was the fans who killed me. At least, they let me do it. It's an old game. At science fiction conventions the fans try to get their favorite author washed-out stinking drunk. Then they can go home and tell stories about how Allen Carpentier really tied one one and they were right there to see it. They add to the stories until legends are built around what writers do at conventions. It's all in fun. They really like me, and I like them.

I think I do. But the fans vote the Hugo awards, and you have to be popular to win. I'd been nominated five times for awards and never won one, and I was out to make friends that year. Instead of hiding in a back booth with other writers I was at a fan party, drinking with a room-full of short ugly kids with pimples, tall serious Harvard types, girls with long stringy hair, half-pretty girls half-dressed to show it, and damned few people with good manners.

Remember the drinking party in *War and Peace*? Where one of the characters bets he can sit on a window ledge and drink a whole bottle of rum without touching the sides? I made the same bet.

The Convention hotel was a big one, and the room was eight stories up. I climbed out and sat with my feet dangling against the smooth stone building. The smog had blown away and Los Angeles was beautiful. Even with the energy shortage there were lights

everywhere, moving rivers of light on the freeways, blue glows from swimming pools near the hotel, a grid of light stretching out as far as I could see. Somewhere out there were fireworks, but I don't know what they were celebrating.

They handed me the rum. "You're a real sport, Allen," said a middle-aged adolescent. He had acne and halitosis, but he published one of the biggest science fiction newsletters around. He wouldn't have known a literary reference if it bit him on the nose. "Hey, that's a long way down."

"Right. Beautiful night, isn't it? Arcturus up there, see it? Star with the largest proper motion. Moved a couple of degrees in the last three thousand years. Almost races along."

Carpentier's trivial last words: a meaningless lecture to people who not only knew it already, but had read it in my own work. I took the rum and tilted my head back to drink.

It was like drinking flaming battery acid. There was no pleasure in it. I'd regret this tomorrow. But the fans began to shout behind me, and that made me feel good until I saw why. Asimov had come in. Asimov wrote science articles and histories and straight novels and commentaries on the Bible and Byron and Shakespeare, and he turned out more material in a year than anyone else writes in a lifetime. I used to steal data and ideas from his columns. The fans were shouting for him, while I risked my neck to give them the biggest performance of all the Drunken Conventions of Allen Carpentier.

With nobody watching.

The bottle was half empty when my gag reflex cut in and spilled used rum into my nose and sinuses. I jackknifed forward to cough it out of my lungs and pitched right on over.

I don't think anyone saw me fall.

It was an accident, a stupid accident caused by stupid drunkenness, and it was all the fans' fault anyway. They had no business letting me do it! And it was an accident, I know it was. I wasn't feeling *that* sorry for myself.

The city was still alive with lights. A big Roman candle burst with brilliant pinpoints of yellows and greens against the starry skies. The view was pleasant as I floated down the side of the hotel.

It seemed to take a long time to get to the bottom.

II

THE BIG SURPRISE was that I could be surprised. That I could be anything. That I could be.

I was, but I wasn't. I thought I could see, but there was only a bright uniform metallic color of bronze. Sometimes there were faint sounds, but they didn't mean anything. And when I looked down, I couldn't see myself.

When I tried to move, nothing happened. It felt as if I had moved. My muscles sent the right position signals. But nothing happened, nothing at all.

I couldn't touch anything, not even myself. I couldn't feel anything, or see anything, or sense anything except my own posture. I

knew when I was sitting, or standing, or walking, or running, or doubled up like a contortionist, but I felt nothing at all.

I screamed. I could hear the scream, and I shouted for help. Nothing answered.

Dead. I had to be dead. But dead men don't think about death. What do dead men think about? Dead men don't think. I was thinking, but I was dead. That struck me as funny and set off hysterics, and then I'd get myself under control and go round and round with it again.

Dead. This was like nothing any religion had ever taught. Not that I'd ever caught any of the religions going around, but none had warned of this. I certainly wasn't in Heaven, and it was too lonely to be Hell.

It's like this, Carpentier: this is Heaven, but you're the only one who ever made it. Hah!

I couldn't be dead. What, then? Frozen? Frozen! That's it, they've made me a corpsicle! The Convention was in Los Angeles where the frozen dead movement started and where it has the most supporters. They must have frozen me, put me in a double-walled coffin with liquid nitrogen all around me, and when they tried to revive me the revival didn't work. What am I now? A brain in a bottle, fed by color-coded tubes? Why don't they try to talk to me?

Why don't they kill me?

Maybe they still have hopes of waking me. Hope. Maybe there's hope after all.

It was flattering, at first, to think of teams of specialists working to

make me human again. The fans! They'd realized it was their fault and they'd paid for this! How far in the future would I wake up? What would it be like? Even the definition of *human* might have changed.

Would they have immortality? Stimulation of psychic power centers in the brain? Empires of thousands of worlds? I'd written about all of these, and my books would still be around! I'd be famous. I'd written about—

I'd written stories about future cultures raiding corpses for spare parts, transplants. Had that happened to me? My body broken up for spares? Then why was I still alive?

Because they couldn't use my brain.

Then let them throw it out!

Maybe they just couldn't use it yet.

I COULDN'T TELL how long I was there. There was no sense of time passing. I screamed a lot. I ran nowhere forever, to no purpose: I couldn't run out of breath, I never reached a wall. I wrote novels, dozens of them, in my head, with no way to write them down. I relived that last convention party a thousand times. I played games with myself. I remembered every detail of my life, with a brutal honesty I'd never had before; what else could I do? All through it, I was terrified of going mad, and then I'd fight the terror, because that could drive me mad—

I think I did not go mad. But it went on, and on, and on, until I was screaming again.

Get me out of here! Please, any-

one, someone, get me out of here!

Nothing happened, of course.

Pull the plug and let me die! Make it stop! Get me out of here!

Nothing.

Hey, Carpentier. Remember THE CHILL? Your hero was a corpse, and they'd let his temperature drop too low. His nervous system had become a superconductor. Nobody knew he was alive in there, frozen solid, but thinking, screaming in his head, feeling the awful cold—

No! For the love of God, get me out of here!

I WAS LYING on my left side in a field, with dirt under me and warm light all around me. I was staring at my navel and I could see it! It was the most beautiful sight I'd ever imagined. I was afraid to move; my navel and I might pop like a soap bubble. It took a long time to get the nerve to lift my head.

I could see my hands and feet and the rest of me. When I moved my fingers I could see them wriggle.

There wasn't a thing wrong with me. It was as if I had never fallen eight stories to be smashed into jelly.

I was clothed in a loose white gown partly open down the front. Not very surprising, but where was the hospital? Surely they didn't waken Sleepers in the middle of a field?

They? I couldn't see anyone else. There was a field of dirt, trampled here and there, sloping downhill to become a shiny mud flat. I raised my head, and he was standing behind me. A fat man, tall but dumpy and chunky enough that at first I

didn't notice his height. His jaw was massively square and jutted out, the first thing I noticed about his face. He had wide lips and a high forehead, and short, blunt, powerful fingers. He wore a hospital gown something like the one I was wearing.

He was beautiful. Everything was beautiful. But my navel? *Magnifique!*

"You are well?" he asked.

He spoke with an accent: Mediterranean; Spanish, perhaps, or Italian. He was looking closely at me, and he asked again. "You are well?"

"Yes. I think so. Where am I?"

He shrugged. "Always they ask that question first. Where do you think you are?"

I shook my head, and grinned for the pleasure of it.

It was pleasure to move, to see myself move, to feel my buttocks press against the dirt and know something would oppose my movements. It was ecstasy to see myself in the bright light around me. I looked up at the sky.

Okay, there has to be a sky. I know that. But I saw nothing. Thick clouds? But there was no detail to the clouds, just a uniform grey above me. Even in my sensation-starved condition it was ugly.

I was in the middle of a field of dirt that stretched a couple a miles to some low brown hills. There were people on the hills, a lot of them, running after something I couldn't make out. I sat up to scan the horizon.

The hills ran up against a high wall that stretched in both directions

as far as I could see. It seemed straight as a mathematician's line, but I sensed the slightest of inward curves just before it vanished into deep gloom. There was something wrong with the perspective, but I can't describe precisely what, just that it didn't seem right.

The hills and the mud flats formed a wide strip between the wall and a fast-moving river of water black as ink. The river was a mile away and didn't seem very wide at that distance. I could see it perfectly, another perceptual distortion because it was too far away for the details I could make out.

Beyond the river were green fields and white Mediterranean villas, walled complexes with the squat classical look to them, some quite large. They weren't arranged in any order, and the effect was very pleasing. I turned back to the wall.

Not very high, I thought. High enough to be trouble climbing, perhaps two or three times my six feet high. I was hampered by the perspective problem. The nearest point of the wall might have been a mile away or ten—though ten seemed ridiculous.

I took a deep breath and didn't like the smells. Fetid, with an acrid tinge, decay and sickly-sweet perfume to cover the smells of death, orange blossoms mingled with hospital smells, all subtle enough that I hadn't noticed them before, but sickening all the same. I won't mention the smells often, but they were always there. Most stinks you get used to and soon don't notice, but this had too much in the blend and the blend changed too often. You'd

just get used to one and there'd be another.

Beside me on the ground was a small bronze bottle with a classical beaker shape. I figured it would hold maybe a quart. Except for the man standing above me there wasn't another blessed thing.

"Never mind where I am," I said. "Where have I been? I don't remember passing out. I was screaming, and here I am. Where was I?"

"First you ask where you are. Then where you were. Do you think of nothing else you should say?" He was frowning disapproval, as if he didn't like me at all. So what the hell was he doing here?

Breaking me out of wherever I'd been, of course. "Yeah. Thanks."

"You should thank the One who sent me to you."

"Who was that?"

"You asked Him for help—"

"I don't remember asking anyone for help." But this time I'd heard him pronounce the capital letter. "Yeah. 'For the love of God,' I said. Well?"

The fat meaty lips twitched, and his eyes filled with concern. When he looked at me it wasn't in distaste, but in sympathy. "Very well. You will have a great deal to learn. First, I answer your questions. Where are you? You are dead, and you lie on the ground of the Vestibule to Hell. Where were you?" He kicked the bronze bottle with a sandalled foot. "In there."

Hot diggity damn, I'm in the nut hatch and the head looney's come to talk to me.

Carpentier wakes up a thousand years after his last flight and sloppy

landing, and already he's in trouble. Spoons and forks and chopsticks, traffic lights, the way a man puts his pants on, all may have to be relearned. Law and customs change in a thousand years. This society may not even recognize Carpentier as sane.

But wake him in a 30th century looney bin among thirtieth century twitchies, and now what? How can he adjust to anything?

There were other bottles sitting unattended on the dirt, some larger than mine, some smaller. I don't know why I hadn't noticed them before. I picked one up and dropped it quick. It burned my fingers, and there were faint sounds coming from inside it.

It sounded like human speech in a foreign language, a voice screaming curses. That tone couldn't be anything else. Endless curses screamed—

Why would they put radios in old bronze bottles and scatter them through the looney bin? My hypothesis needed more work.

The people up on the hills were still running. They'd looped back to about where I'd first seen them, and whatever it was they chased, they hadn't caught it yet. Do they let the nuts run in circles in futuristic looney bins?

Where had I been? Where? There wasn't any hospital around here, no facilities for keeping all or part of a corpse, nothing but this crazy man and a lot of bronze bottles and people running in circles and—insects of some kind. Something whined and did a kamikaze into my ear. Something else stung me on the back of the neck. I slapped franti-

cally, but there wasn't anything to see.

It felt good even to hurt myself slapping.

My 'rescuer' was patiently waiting for me to make some response. It wouldn't hurt to humor him until I had more information.

"Okay, I'm in the vestibule of Hell and I was in a bottle. A djinn bottle. How long?" I told him the date on which I'd fallen from the window.

He shrugged. "You will find that time has not the same meaning here as you are accustomed to. We have all the time we will ever need. Eternity lies before us. I am unable to tell you how long you were in that beaker, but I can assure you it is not important."

Not important? I almost went mad in there! The realization made me start to shiver, and he dropped to his knees beside me, all concern, to put a hand on my shoulder.

"It is over now. God will not allow you back into the bottle. I cannot assure you that there will be nothing worse before you leave Hell. There will be much worse. But with faith and hope you will endure it, and you will be able to leave."

"That's a lot of comfort."

"It is infinite comfort. Did you not understand? I know a way out of here!"

"Yeah? So do I. Right over that wall."

He laughed. I listened for a while and it got irritating. Finally he choked it down to a chuckle. "I'm sorry, but they all say that, too. I suppose there is nothing for it but to let you try. After all—we have plenty of time." He laughed again.

Now what? Would he turn me in if I tried to climb the wall? I got up, surprised at how good I felt except for the gnats and the smell. My imaginary exercises in the bottle—

Look, wherever I really spent all that time, effectively I was in a bottle, right? It's a convenient figure of speech. Anyway, my exercises in the bottle had paid off. I started briskly toward the wall.

Wherever the ground dipped low it became squishy mud, ankle-deep, with small live things in it. I tried to stick to the high ground. The fat man kept right alongside me. There was no chucking him. After a while I said, "If we're going to walk together I might as well know your name."

"Benito. Call me Benny if you like."

"Okay. Benito." *Benny* sounded much too friendly. "Look, Benito, don't you want out of here?"

I hit a nerve. He stopped short, his wide face a gamut of emotions like nothing I'd ever seen. After a long time he said, "Yes."

"Then come over the wall with me."

"I can't. You can't. You'll see." He wouldn't say anything else, just kept pace with me as I walked on.

And on.

And on, and on, and on. The wall was a *long* way off. I was right about the perspective. We'd been walking for over an hour as far as I could tell, and the wall looked no closer.

We walked until we were exhausted, and it was still a long way off. I sat down in the mud to slap gnats. "Didn't seem that far. How high is that thing, anyway?

Must be colossal."

"It is no more than three meters high."

"Don't be silly."

"Look behind you."

That was the shock of my life. The river was now maybe three miles away instead of one. And we'd walked for *hours*. But—

Benito nodded. "We could walk for eternity and never reach the wall. And we *have* eternity. No, you don't believe me. Very well, convince yourself. Continue toward the wall. Continue until even you are certain it can never be reached, and then I will tell you how you can escape."

It took me several hours, but I finally believed him.

The wall was like lightspeed. We could get arbitrarily close, but we couldn't ever reach it. Like lightspeed, or the bottom of a black hole, but like nothing else in the universe I knew.

We weren't going out this way.

And—and just where were we?

III

I SAT IN THE DIRT and slapped gnats while Benito explained it again.

"We are dead and in Hell. This is the Vestibule to Hell, where those who would make no choices in life are condemned. Neither warm nor cold, believers nor blasphemers—you see them in the hills. They chase a banner they will never catch."

I remembered then. "Dante's *Inferno*?"

Benito nodded, his big square jaw heaving like a breaching whale. "You have read the *Inferno*, then. Good. That was the first clue I had to the way out of here. We must go down—"

"Sure, all the way." Something about a lake of ice, and a hole in the center of it. It had been a long time since I had read Dante. I couldn't see that remembering a 13th century book would do me any good to begin with. This couldn't possibly be the real Hell. Dante's cosmology had been ludicrous, for one thing.

So where was I? "How come you're so sure this is the place Dante described?"

"Where else could it be? All of the features are here. All of the details."

And I'd been dead a long time. Centuries? What kind of civilization would build an exact copy of Dante's *Inferno*? An Infernoland. Was it part of a larger amusement park, like Frontierland in the Disneyland complex? Or was Infernoland all there was to it?

Who was Benito? A stooge, or a revived corpse like me?

The wall. How had they managed that trick? The wall hadn't moved, and I certainly had. Some kind of local field effect? A timeslip? Bent space? Come on, Carpentier, you *wrote* the stuff. What's the explanation? Not *the* way they did it, just a plausible way!

"First, we must cross the river," Benito was saying. "Do you believe me now when I tell you that you must not attempt to swim it, or even get wet from it, or must you try that too?"

"What happens if I just dive in?"

"Then you will be as you were in the bottle. Aware, and unable to move. But it will be very cold, and very uncomfortable, and you will be there for all eternity knowing you put yourself there."

I shuddered and slapped a gnat. He might be lying. I wasn't going to try it.

It looked very nice across the river, and that was where we had to go before we could find Dante Alighieri's escape hole in the center of Infernoland. The hell with getting to the center! Let me get to those villas over there and I'd be happy enough. "Who's on the other side of the river?"

"Virtuous pagans," Benito answered. "Those who never knew the Word of God, but kept the Commandments. They are not persecuted. Their fate may be the most cruel of all those in this place."

"Because they aren't tortured?"

"Because they think they are happy. You'll find out, let us go and see them."

"How?"

"There is a ferry-boat. Once it was a rowing boat, but—"

"Got overcrowded in Hell. Too many arrivals. Sure." And in Disneyland I'd been on a Mississippi river boat big enough for fifty or sixty people to walk around on. It chugged around on a little pond it shared with a miniature clipper ship. The Builders of Infernoland had a sense of humor, putting a ferryboat in place of Charon's old rowboat.

Maybe we'd meet some of the

paying customers on the ferry. I didn't think Benito was one. He behaved more like a fanatical Catholic.

And what was I? Nobody had given me any role to play. Who inhabits Infernoland?

Who inhabits the Inferno?

Damned souls. That was my job, to play damned soul for the amusement of tourists. It wasn't a role I liked very much.

IT TOOK AS LONG to leave the wall as it had to go toward it. At least they were consistent. There were laws to this place, if only I could discover them.

When we passed the bottle that had been beside me when I woke up, we turned left and angled toward the river. An old drinking song from science fiction conventions kept running through my head. "If hosen and shoon thou never gavest men, *every night and all*, the fire will burn thee to the bare bone, and Christ recieve thy soul." Was that really where I was, in a real Hell, where justice was meted out to the ungodly?

Scary. It would mean that there was a real God, and maybe Jonah was swallowed by a whale in the Mediterranean Sea, and Joshua ben Nun stopped the Earth's rotation for trivial purposes. . .

There was something leaning against a rock. At first I couldn't make it out: a pink mound with hair trailing down one side. We got closer and the mound became five hundred odd pounds of woman sitting cross-legged in stinking mud. A swarm of gnats hummed around her. She didn't bother to swat them.

She looked up at us with lifeless eyes. Benito took my arm to hurry me on past her, but I shook him off. She couldn't be quite sane either, but she might be able to tell me something straight. It was more than he could do, and I needed help.

I squatted down to look into her face.

She was pathetic, hardly in shape to help anyone, including herself. Far back within tunnels of fat were tiny sparks of life, dull grey against black. Hopeless eyes, almost lifeless.

Her voice was a husky whisper. "Well?"

"I don't know where I am. I just got here and I have to know. Can you help me?"

"Help *you*! I died, and then *this* happened to me!"

"Died."

"How else do you get into Hell?" Her voice rose to demand attention despite my shocked surprise. The full force of her breath washed over me in waves. "What did I do? I don't *deserve* this! I don't belong here *at all*," she wailed. "I was beautiful. I could eat like a horse and burn it off in an hour. Then I woke up here, like *this*!" Her voice dropped to a low, confidential murmur. "We're in the hands of infinite power and infinite sadism."

I shied back. Another one.

"Is there nothing you can do?" Benito asked her.

"Sure. I can chase banners to keep slim. What's the point of that? They won't let you do anything meaningful."

I shuddered. It could have been

me. "Why would anyone do this to you?"

"I . . . think it must have been because ten million fat people were cursing me." Her voice turned venomous. "Fat, fat, fat people with no will power and no self-respect."

"Why?"

"For doing my job! For trying to help people, trying to save them from themselves! For banning cyclamates, that's why! It was for their own good," she ranted. "You can't trust people to be moderate about anything. Some people get sick on cyclamates. They have to be helped. And this is what I get for helping them!"

"We're trying to escape. Want to come with us? Benito thinks we can get out by going down to the center of this crazy place."

A little spark of interest flared in her eyes, and I held my breath. My open mouth had sent me floating down the side of a building; when would I learn to keep it closed? If she came with us we'd never get away. What good was she?

She struggled to get up, then collapsed against her rock. "No, thank you."

"Right." I started to say something else in parting, but what? If anything went at all right, I'd never see her again. I just walked away and she let her head slump back into the mounds of fat that bulged at her neck.

As we walked away, Benito asked, "What are cyclamates?"

I slapped at a gnat. The gnats were everywhere, stinging us both, but Benito didn't bother to slap at them. "Sugar substitute. For people who want to lose weight."

He frowned. "If there is too much to eat, surely it would be better to eat less and share with those who have none."

I looked at his big paunch and said nothing.

"I too am in Hell," he reminded me.

"Ah. And they can do that to you. . . ." I shuddered. We were lucky.

"I take it you did not agree with her policy?"

"Idiots. If they'd fed as much sugar to the control rats as they gave cyclamates to the experimental group, they'd have killed the controls first. Instead, they doomed a lot of people to fat. There wasn't a good substitute for cyclamates. I know one guy who bought up cases and cases of a cyclamate diet drink just before the ban hit. He used to give cases of 'vintage Tab' as Christmas presents. They were appreciated, too."

Benito said nothing.

"I know a couple who used to drive up to Canada every so often just to buy cyclamates. It was a *stupid* policy." I looked back over my shoulder at a shapeless pink mound. "Still, it seems a little extreme, what they did to her."

"It is not just?"

"How can you call that *just*?" I didn't say anything else, but I remembered what she'd said. 'We're in the hands of infinite power and infinite sadism.'

And just who in Hell was Benito? A paying customer having sport? A damned soul like me? Or one of the paid crew of Infernoland? He talked like a religious fanatic; he seemed to take everything at face value.

Did I dare follow him? But what else could I do? One thing was certain, if he could think that woman had been treated justly, he was not much better than a devil himself.

Hey, Carpentier. Would an artificial Hell have artificial devils? I looked at Benito more closely. He was partly bald. There were no horns on his forehead.

We seemed to be covering a lot of ground, as if the effect of too much distance to the wall had been played in reverse. Suddenly we were part of a crowd, all streaming toward the river. Nobody was pushing them along, but they didn't seem friendly and they didn't talk among themselves. Each one was huddled in toward himself, not looking where he was going. Or she, there were a lot of women.

The ferryboat captain had a long white beard and eyes like burning coals. He screamed in rage when anyone was slow getting aboard. We were pressed together on deck, a mass of us so tightly packed that we couldn't move.

"You again!" he'd turned his burning eyes on Benito. "You've come here before! Well, you won't escape again!" He swung a long billyclub at Benito. It hit with a crack that I thought would break my guide's skull, but it only staggered him.

More people packed the decks until I couldn't even see. Finally I felt the boat begin to move. By then I'd have been glad to stay behind, but there was no way off the boat.

Two voices whispered intensely near my ear:

"Why didn't you stop when I screamed?"

"Because you startled me into taking my foot off the brake. At least I'll never have to listen to your back seat driving again—"

"But we're in Hell, darling. They'll probably put us in a car with no brakes. Maybe they'll give you a horn. You'll like that."

"Shut up! Shut up!"

She did, and quiet descended. No crowd is that quiet. It was as if nobody had anything to say to anyone.

We bumped solid ground. "All off," Charon shouted. "Damned souls! Damned forever! You cursed God, and now you'll pay for it!"

"Damn God and everyone else!" "Piss on you!" "Up the people!" "You're mucking bastards, all of you, get off my foot!" "But I don't belong here." "What'd I do? Just tell me—" "Damn the lot of you, I died a man!"

We pushed and shoved and danced to keep our feet in the swarm. At least we were on the other side. The crowd was hurrying downhill, along a road that ran between thick, high walls. I hung back, hoping Benito would go with the rest. No such luck. The road turned and twisted so we couldn't see what was ahead, but that was good because after awhile we were alone.

I tried to climb the wall. It was a tough scramble and I kept falling back. After the fourth time I sat there below the wall and whimpered.

"Would you like help?" Benito asked.

"Sure. I thought you said the only way out was downhill."

"It is, but we have time to explore. Try again. This time I will

lift you."

He practically threw me over the wall. He didn't look that strong. I sat on top for a second and looked down at him. He seemed to be waiting for me to help him up.

And now what, Carpentier? Fair's fair, he helped you. Yeah, but why? Leave him behind, he's trouble.

But he knows things I don't. And he got me out of the bottle.

Did he? He says he poured you out of a bottle the size of a fifth of rum! Leave him.

I didn't get the chance to decide. While I thought it over, Benito began climbing like an Alpinist, using tiny cracks and bumps I could hardly see. Pretty soon he got one hand on top of the wall and pulled himself up. He wasn't breathing hard, and he didn't say anything about my sitting there and watching instead of helping.

I turned to look at the countryside. After all, this Infernoland seemed to be modelled on Dante. A quarter of a century ago the Inferno had been a required book for a course in Comparative World Literature. I'd paid as little attention to the book as I could get away with. I remembered almost nothing, but certainly the place had not been pleasant. God's own torture chamber, very medieval.

Vague images came back to me now: devils with pitchforks, trees that talked and bled, giants and centaurs, fire, snakes. . . but were those from the authentic Inferno, or were they hangovers from Oz books and Disney cartoons?

Never mind, Carpentier. You're not going any further.

IT WAS LOVELY on the other side of the wall. I jumped down onto firm ground, grassy and pleasant. The air was clean, as at the top of a mountain, with that fresh smell you get only after a hard backpack into remote country. The gnats were gone. We walked toward the villas, lovely things, square-built, the colors of stone by twilight.

There were crowds around us. Men and women and children—a lot of children, far too many, all watching us with big round eyes (or almond eyes, Hell was thoroughly integrated). Adults and children alike were curious, but none of them said anything.

They didn't want to be near us, either. They shrank away as we approached.

It was embarrassing. I thought we must be carrying the smells of the Vestibule area, the fetid stench of roses and decay. We'd have to find a place to wash.

"I think I'm going to like it here," I said.

Benito looked at me curiously, but he only said, "Pleasant, isn't it? Here there is no punishment."

The word grated. *Punishment* implies authority, someone with more power and a better moral position than yours. I couldn't accept that. We were in the hands of the Builders, and I'd learned all about their moral position on the other side of the black river.

But I didn't flare up at Benito. Lightly I asked, "These, then, are the privileged customers of Hell?"

"Yes." Benito did not smile. "They never sinned. They would

have reached Heaven if they had known the Church."

"And the children?"

"Unbaptised."

I'd heard that about Catholic beliefs. Even in Infernoland it seemed a little rough on the kids. "I thought they got Limbo."

"Call it Limbo if you wish. This is the First Circle of Hell." He paused, uncertain. "There are legends that say the children will be born again."

There were as many children here as there were adults! As if the Builders had gotten a discount for quantity. Hmmm. Androids?

It might come down to a matter of economics. Android infants would be cheaper than android adults: smaller, fewer reflexes. Would it be cheaper to build androids, or to find and capture human beings? I couldn't know, not without knowing the source.

But I was here, placed here without my consent or knowledge, by an unknown hand. If me, then why not a thousand others? A billion?

Benito wouldn't be much help. He didn't seem to question anything he saw.

Robot or human, child or adult, they didn't seem unhappy. Except those near us. . . "Benito, what's the matter with them?"

"They sense that we do not belong here. I come from deeper in Hell, and the smell of the depths is on my soul."

"But I don't."

His smile was grim. "They will not accept you either."

I wasn't so sure of that. If I found a way to clean up, and different clothing. . . hmmm. Knock

someone on the head, steal his toga; why not? Well, partly because they'd tear me apart if they caught me. And partly because there was no privacy here. The villas, maybe. Or—

I pointed upslope toward what might have been a domed planetarium; the nearest building in sight of us. "What's that?"

"He looked. 'I have never seen it before.'"

"Come on."

He came, but reluctantly. "We might not be permitted entry. That is a public building, but we are not of the appropriate public."

"We—" I stopped because a white-bearded patriarch swathed in purple-bordered white bedsheets had grasped me roughly by the arm. He asked a rude question in gibberish.

"Go peddle your papers," I informed him.

He frowned. "Recent English? I asked of you why you invade a place not meant for you."

"I'm taking a survey. Are you happy here? Do the arrangements satisfy you?"

He snorted. "No."

"Then," asked Benito, "why not leave? There is a way out."

The bearded man looked him over, while several passersby stopped to listen. He said, "In what direction does it lie?"

"Downslope. One must travel all the way to the center. To know evil is one path to knowing good."

It was lousy dialogue. The bearded man thought so too. "I do not question your knowledge of the depths of Hell," he said pointedly. "I think you lie."

"Why would I? We plan to leave

Hell—" Benito was interrupted by raucous laughter. A crowd was gathering and it wasn't friendly.

"You can all leave." Benito seemed deadly serious. "Come with me, deeper and deeper into Hell. Learn to hate evil—"

"Hatred for salvation?" one of the oldsters asked. "A curious route to salvation."

Benito seemed to know him. "Yet, Epictatus, that is what you must learn. Not to hate men, but to hate their sins. And *that* you cannot do moderately. You *know* the truth, now. You know that reason alone is not enough. You must ask for grace. . ."

—I slipped out during the sermon. They were standing there politely waiting for him to finish. What might have been a mob scene had become a formal debate.

How long would that last? Benito was pushing them in a direction they wouldn't even consider, and they didn't like him at all. They'd looked at me the same way: candid contempt, and the high bitter flavor of mockery. They wanted out, and they didn't believe there was any way out, and they were damned well not going to listen long to a man they thought didn't belong with them.

Benito was preaching hatred, and they hated *him*. He should have had more sense. Like me.

The dome: it couldn't be a planetarium. There was no sky here. Conceivably it was a bathhouse where I could wash off the stench, and possibly find an unguarded toga. I climbed toward it.

There were no guards. I walked between Doric pillars, up black

marble steps to an expanse of black marble floor. Half a dozen people were talking in a circle. They seemed lost in distance, but as far away as I was, when they caught sight of me they turned their backs firmly and continued talking.

The language wasn't familiar at all.

The place was as empty as anything I'd seen since I left the area of the bottles. Six rude sons of bitches, and a thing in the center of the black marble floor. It might have been a sculpture, it might have been a machine. A thick silver ring twelve feet tall, standing on edge, and a control board at its base.

The console looked operational. There were labels, in English. A switch (marked ON, OFF), a joystick, and a notch with a knob in it. The notch ran the whole length of the console.

I tried the joystick. It went in all six directions: left, right, forward, back, push down, pull up. When I used the switch the space within the ring clouded, then became starry space.

It was a planetarium.

When I pushed on the joystick nothing happened.

I took a closer look at the markings along the notch. They were logarithmic, labelled in *Parsecs/Second*. The knob was all the way to the left.

I moved it hard right and tried the joystick again.

The universe came up and hit me in the face. Whoosh! Stars shot past and around me; a sun came at me and exploded into a fraction of a second of intolerable brightness and was gone. And I was flat on my

back a couple of yards from the console.

That was some planetarium!

The half-a-dozen natives were watching me with some amusement. Screw 'em. I went back to the console, moved the knob down to one parsec/second, then to a tenth of that. Tried the joystick.

This time the motion was just obvious. I steered toward a blue-white star; moved the knob to slow as I approached it. Moved into it.

The brightness should have burned my eyes out. It wasn't even painful. Odd. . .

I went through the center of the star (X-ray blue) and came out the other side (tremendous prominences leaping out ahead of me) and into space. What now? Find a planet? A different star? Stars were easier to find in this sparkling emptiness, but I'd *love* to dive into an Earthlike world. To search out the layers of it, to see the glowing nickel-iron heart. Let's see, that not-too-brilliant white fleck could be a yellow dwarf. I moved the knob—

A large hand fell heavily on my shoulder.

I twitched like a man electrocuted. I turned, and there was the mob scene I thought I'd left behind me: fifty-odd large, heavy men surrounding me and Benito and the Anywhere Machine.

The white-bearded man who spoke English said, "You are leaving."

I said, "Dammit! Why? Nobody else is using the damn machine. I've waited all my life for something like this!"

"We do not want you here," he

said. "We waited because we hoped a messenger of the gods would come to remove you. We might have asked him questions . . . but we have tolerated you too long. As for the machine—" One side of his mouth twitched upward. "If you can carry it you may take it with you."

I cursed him. I stopped when his wide-shouldered friends converged. Several of them wore armor! They moved away in a tight circle with Benito and me in the center.

I whispered, "Benito, can't you stop them?"

He looked at me. "How?"

Yeah.

But if I'd known what waited below, I'd have fought them.

V

EVEN WHILE THEY MARCHED us toward the wall Benito never gave up.

"You may leave this place!" he shouted. "Hector! Aeneas! You are not cowards, to stay where it is pleasant when there is everything to gain elsewhere! Come with us!"

They ignored him.

They were compact and tough inside their armor: too tough to fight, even if they were men, which I doubted. *Hector, Aeneas*: I knew the names. I remembered the Abe Lincoln robot at Disneyland. Could the armor be part of them? With inspection plates—

"Where is Virgil?" Benito raved. "He is no longer here, is he? And the Emperor Trajan?"

"We had our chance," said the

taller, broader one. "We didn't take it. There will be no other."

"Have none come here since?" Benito demanded.

The soldiers barked bitter laughter. "Many."

"Is it reasonable to suppose that they will never have an opportunity to leave?"

We had come to the wall. "We'll think about it," one said. "Now out with you. Go where you belong." The gate slammed shut behind us.

I went for the wall on the other side. I examined it without joy. The footholds Benito had used would better have fitted a spider.

Benito watched with a wry smile. "You never give up, do you?"

"No."

"Perserverence is commendable. You will need it, but you must develop other virtues, such as prudence. What will happen if you enter the First Circle again?"

"Maybe they won't catch us this time. I won't go near anyone until I've changed clothes and taken a bath."

"Do not tempt the angels," Benito said. He was quite serious. Yeah, and why not? I was expecting devils in Infernoland. Why not angels?

"That messenger they hoped to see. They *wanted* him to come."

"They did, yes. But we are fugitives, Allen."

There were no handholds. This time Benito wouldn't help. I was still trying to climb the wall when a flash flood of people spilled into the far end of the alley. As they foamed toward us in dreadful silence I made one last attempt to go up the wall.

Then they swept us up and floated us away.

WE WERE IN a marble palace. It was enormous, without furniture. The walls were covered with frescoes of bulls and dolphins and pretty girls wearing flounced skirts and little jackets that opened in front to show bare breasts. The palace was lit with torches in bronze holders along the walls, and there wasn't any sign of modern technology at all.

Except for the palace itself. It wound on and on, chamber after chamber, huge staircases with great pillars inscribed in languages I couldn't read. It was too big; it must have been prestressed concrete or something better. I would have liked to stay and look around, but we were embedded in the flow of the crowd. Nobody spoke or paid us any attention. I was glad for Benito's company. Crowds of strangers bug me, and this one was worse than New York commuters, everyone wrapped up in himself.

We spilled into an enormous room open at the far end. I had a good view through the pillars. The ground sloped sharply away into the bleakest landscape I'd ever seen. The castle was perched on the side of an enormous bowl, a world-sized bowl. Far down into it were the glimmers of fires and the shadow of smoke. I couldn't see far into the smog that hung over everything.

There was a throne at the far end of the audience chamber. An alien occupied it. He was vaguely bovine, but I'd have taken him for an oversized man if it hadn't been for his tail.

Tail!

"What is that?" I demanded.

"Minos. Judge of the Dead," said Benito.

The Builders had mixed some Egyptian or Cretan mythology with their Christianity. That, or they'd had to warp their landscape to fit a genuine alien. I could believe a cropping beast becoming an intelligent biped, given time and impetus and perhaps an assist from biological engineers. I'd written stories about that kind of thing.

Could Minos be one of the Builders?

People went up to present themselves to the monster. I couldn't hear what the girl in the yellow dress was telling it, but it grinned and nodded. Abruptly its tail looped out and wrapped around and around the girl. It lifted her.

The tail stretched like the limbs of Plastic Man in the old comic books. The girl shot between two pillars and dwindled, dwindled, dwindled to a speck. Minos' tail must have been tens of miles long at that point. It came snaking back through the air, while the speck that was the girl sank like a single snowflake.

My willing suspension of disbelief went all to hell. I started to giggle hysterically.

Nobody noticed. Nobody but Benito, who watched curiously as I gathered the shreds of my self control, took him by the arm, pointed at 'Minos' and said, "He can't *do* that!"

He was doing it again! The tail stretched out between the pillars like an infinite length of snake, dropped a man in a postman's uni-

form into the murky air and came coiling back.

But there wasn't room! Even ignoring the moment arm—that much weight at the end of that much length should have toppled him, and how could such a length of tail, *flexible* tail, be strong enough to stay almost straight? But ignore that, and tell me where there was room for tens of miles of tail to be coiled inside his body?

His feet weren't anchored; I watched until I saw them both move. The tail wasn't stored in the float, then.

"Are you all right?" Benito asked.

My vision was greying out; my whole body had a buzzing foot's-asleep feeling. I said, "I'm going to faint."

"You can't faint here. Hold fast." His hand gripped my shoulder.

A dark-haired woman, quite pretty, was encoiled in the tail until she nearly vanished, was lifted and sent spinning off down the bowl. A man in a cabbie's uniform was next. Three loops of tail and out he went into space. And another, and another—

There were thousands here. We'd starve before we reached our turn.

But I didn't feel hungry, and hadn't felt hungry since I left the bottle, and that was hours ago. Also, something was wrong with time. "Minos" was in no hurry. Quite the opposite. He took plenty of time to deal with each case, and there were plenty of cases; yet the crowd thinned out much faster than it should have.

Where were they going? I never

saw anyone leave the room, but there had to be other audience chambers, people slipping off into side passages. There must have been hundreds, perhaps thousands, of copies of "Minos".

Ridiculous mummery. But the tail, Carpentier! Hidden in hyperspace, or snaking out of an alternate time track? If the Builders have that kind of technology, how long were you dead? Ten thousand years? A million?

It was our turn. We approached together. Not many had come up in pairs.

"Sodomites, huh?" Minos said. "Seventh Circle, Third Level. Or have you got something worse to confess?"

I said, "I refuse to answer on grounds that my—"

He looked a lot like an angry bull when he frowned, and nothing at all like a machine. He turned to Benito. "You've been here before. Why have you left your proper place?"

"Is that your affair? You see I roam freely through Hell."

"Yes. How?"

"It has been willed that I may do so. You have no right to interfere."

Minos waved at me. "And this one?"

"He has come from the Vestibule," Minos said. "You will note that he comes of his own accord. You may not judge him."

"Lawyers." Minos laughed. "I have problems with lawyers. There are so *many* places appropriate to that breed. Where are you two going, then?"

"Down."

"Back to the First Circle."

We'd spoken simultaneously. Minos laughed. "Back you will not go. Are you sure you don't want me to judge you, Allen Carpenter? My judgement is just and fair. You could choose worse for yourself than justice."

"Cease!" Benito commanded. I jumped. He was a changed man. Power seemed to gather around him as he struck a pose, massive chin jutting out in defiance, his face both calm and stern. Once upon a time he had been used to obedience.

"I am permitted to judge. . ."

Suddenly Minos sounded petulant.

"You have already judged me. What other power have you? And this man is not under your jurisdiction. Leave us alone to go in peace."

"Not back up."

"No. Down."

Minos laughed. He waved toward the steps leading down into the bowl from his throne. "Depart. Thou art sent!" He was still laughing as we started down those steps, the mocking laughter in our ears until we lost sight of the palace.

VI

WE WERE ALL RIGHT as long as the steps continued. Unfortunately they soon trailed away into a broken slope that still dropped at forty-five degrees or so. At the same time a wind began to rise. Benito and I turned to face the slope and backed down on toes and knees and hands.

In fact, the hurricane in my head (Where does the Minos-thing keep its tail? What is Benito, that he gives orders to an inhuman that

judges all others who come before it? Is this Hell for a science fiction writer, where physical laws are whimsical and puzzles have no answers?) was nothing compared to the hurricane we were backing into. We moved flat against the slope, clutching at the rock and digging into the dirt for footholds.

Benito yelled, "Minos called you Carpenter. Not Carpentier."

I'd been wondering how the monster knew. "I was born Carpenter," I shouted down at Benito. "I added the *i* to make the name more interesting, easier to remember. I wrote under Carpentier." And when I talked to myself (I didn't add) it was Carpentier I talked to. I'd started that in an effort to memorize the new pronunciation.

We'd backed onto a broad ledge. I stayed flat as I looked around.

Someone was dancing to the music of the howling wind.

He was bones and paunch and long flying hair just greying unevenly at the temples. He jumped and danced and flapped his arms like a bird, grim determination on his homely face.

I hollered into the wind. "Hey, friend—"

He didn't wait for the question. "If I could just get off the ground!" he wailed. "The guy in the helmet's got a *dozen*!"

Hey, yeah, I'd been right the first time! It was a futuristic looney bin geared for psychodrama on the grand scale! Let them work out their delusions here, and maybe they'd be fit for whatever unimaginable society they'd flunked out of. . . And I had answers to all the

questions, in that wonderful moment before I followed his eyes upward.

The air was full of flying people.

They weren't exactly guiding their flight. The wind had them. Here it churned them in a momentary funnel, then flung them outward. There they came in a straight blast; it hit a shoulder of the mountain and churned the trapped beings into eddy currents. The people flew like Kleenex in a hurricane, but they looked like people, and they howled like Kansans caught outside in a flash tornado.

Most of them were flying in man-and-woman pairs. But, yeah, there was one guy surrounded by a good dozen girls, all in a whirling clump at the top of a rising air column.

The bony guy on the ledge ran off flapping his arms. There were others along the base, men and women, all trying to fly. I had different ideas. I gripped the rock hard and stayed flat.

"The Carnal," Benito screamed into the wind. "Those who warped all that mattered in their lives for lust. I imagine those at the base of the cliff were unsuccessful lovers. We will be in less danger on the next ledge." He started crawling.

"Benito! That's it!" I cried. "We'll fly out of here!"

He turned in astonishment. It was a mistake. The wind slipped under his raised shoulders and lifted him and flung him at me.

I got him by the ankle. He nearly tore me loose, but I had a handhold in a split rock and I hung on. He doubled on his own length and pulled himself down my forearm until

he was flat to the ground again.

"Thank you," he bellowed.

"S'okay. I wish you could have seen your expression." I was rather pleased with myself, as if I'd managed to catch a glass somebody's elbow had knocked off a table. *Good reflexes, Carpentier!*

"We'll fly out of here," I screamed happily into his ear. "We'll fly over the wall. We'll build a glider!"

"I was stubborn too, once. Perhaps I still am. Is this really your wish, Allen?"

"Damn right. We'll build a glider. Listen, if we're light enough to be blown away by the first wind, we probably won't need much more than a big kite! Hey, let's get out of this wind and talk it over."

We crawled.

THE WEATHER CHANGED as we lost altitude. It didn't get any better. The wind died down; we didn't need to clutch at the rocks, and we could hear ourselves speak. But a freezing drizzle started.

Now that I was thinking *glider*, the loss in altitude bothered me. "We need a place to build it," I said. "Out of the wind. We need fabric, a lot of fabric, and we need wood. We probably need tools."

Benito nodded. "There is a place, a great swamp, the Styx. Trees grow there. As for the fabric and the tools, we can cross Styx and get them from the wall."

"How many walls have you got here?"

Benito smiled grimly. "None like this one ahead. Red hot iron."

I believed him. Nothing subtle about Infernoland. "How far down

is it? We're losing altitude with every step."

"A good distance yet." Benito laughed. "A glider. You may be the first ever to think of that. If we can launch from the hill above Styx, we can use the thermal up-draft above the red hot walls. Ecch," he said, about the time I stepped backward into freezing slush.

We'd reached another level region. I stood up and looked around. Freezing muck in all directions. Human beings lay full length in it, like half-immersed logs. The rain was turning to sleet. Cold garbage washed against my ankles.

"Behold the low rent district," I said.

I got a chuckle from Benito. "Not yet," he said; and if I hadn't had the shivers before I got them then. He swept his arm about him and said, "The Gluttonous."

"I don't want to know. Come on, let's get through this."

We waded out into it.

In the darkness, and half-blinded by sleet, I managed not to step on any half-buried victims. Some raised their heads to watch us pass, showing us uniform looks of weary despair; then sank back after we were gone.

Men and women in about equal numbers, they ranged from pleasantly plump to chubby to gross. Three or four were as bad as the woman in the Vestibule. I wondered if they'd be pleased to know about her.

And once I wiped frozen slush from my eyes, cursing imaginatively under my breath, and when I dropped my hand he was staring at

me: a long-haired blond man built like an Olympics athlete.

"Allen Carpentier," he said sadly. "So they got you too."

I looked close and recognized him. "Petri? Jan Petri! What are you doing here? You're no glutton!"

"I'm the least gluttonous man who ever lived," he said bitterly. "While all of these creeps were swilling down anything that came near their mouths, from pig meat to garden snails—and you too, for that matter, Allen—I was taking care of myself. Natural foods. Organic vegetables. No meat. No chemicals. I didn't drink. I didn't smoke. I didn't—" He caught himself up. "I didn't hire you as my lawyer. Why am I bending your ear? You're here too. You were one of the PIGS, weren't you?"

"Yeah." He meant the Prestigious International Gourmand Society, whose purpose in life was to go out and eat together. I'd joined because I liked the company. "But I'm not staying here. This isn't my slot."

He wiped slush from his face to see me better. "So where are you going?"

"Out of this place. Come along?" He'd be unpleasant company till we got him a bath, but I knew he wouldn't slow us down. There never was a health nut to match Petri. He used to run ten miles a day. I figured he'd be a lot of help building the glider.

"How do you get out of Hell?"

So they'd convinced him too. "We go downhill for awhile. Then we'll—"

He was shaking his head. "Don't

go down. I've heard about some of the places downhill. Red hot coffins and devils and you name it."

"We're not going very far. We're going to build a glider and go over the walls."

"Yeah? And then where?" He seemed to think it was funny. "You'll just get yourself in more trouble, and for what? You're better off if you just take what they give you, no matter how unfair it is."

"Unfair?" Benitt asked.

Petri's head snapped around. "Hell yes, unfair! I'm no glutton!"

Benito shook his head, very sadly. "Gluttony is too much attention to the things of the earth, especially in the matter of diet. It is the obsession that matters, not the quantity."

Petri stared a moment. Warily he said, "Bug off," and sank back into the freezing muck. As we left him I could hear him muttering. "At least I'm not *fat* like those animals. I take *care* of myself."

I was annoyed with Benito. "You didn't have to insult him. We could use his muscles. *Hey—*"

Benito heard the panic in my voice. "Yes?"

"I was at Petri's funeral! All that attention to his health, and then he got caught in the Watts riots. But they damn sure didn't freeze him! They cremated him!"

"Freeze him?"

I didn't bother to explain. They'd cremated Petri, burned him to ash and gasses. How could he have been revived? How could the Builders of this Infernoland even have found specs for a robot analogue? Or a cell for cloning? Or... anything? Cremated is as dead as you can get!

Do the Builders have a time camera? Physical principles unknown, but to re-create Petri they have to be able to photograph the past. So we give them that, and the space-warping fields, and the genetic engineering that created Minos and freed Carpentier from the need to eat or drink or sleep, and the weather control, and the reduced mass of people in the winds, and the engineering technology that built Infernoland itself.

Carpentier, if they're that powerful, do you really want to fight them?

Of course not. I only want out!

"You're very thoughtful," said Benito. "Watch your step."

I stopped at the brink of a precipice. Then I followed Benito down a wandering, dangerous trail. It switchbacked along the face of the cliff and in many places it would have been easy to go over the edge. That scared me a lot. After all, I'd done it before. . .

At least we were going down on our feet, and the sleet had stopped.

Things were definitely looking up.

Still, there were funny noises from the gloomy area below, sounds my mind registered as construction work. *Crash*. A long pause, in which voices screamed orders too distant to make out.

Crash.

VII

THE TRAIL LED OUT onto a flat plain of hard baked clay. As we reached the bottom Benito stopped me silently, with an arm held

straight out across my chest. I was willing. I had heard the rumble and the shouting coming toward us.

It rolled past us at a good clip: a boulder four or five yards across, nearly spherical, bounding across the cracked adobe, surrounded by a shouting mob. They were urging it along, running alongside and butting the mass with their heads and shoulders, a mob of men and women dressed in the finest rags I'd ever seen. There were the remains of evening gowns and slashed velvet Restoration clothing, academic robes and Gernrich original creations, all torn and filthy.

The leader wore striped trousers and swallow-tail coat and a ring that would have choked a hippopotamus. "This time!" he screamed at the top of his voice. "This time we'll . . . get them!"

"We can pass now," Benito said calmly.

"What was *that* all about?"

CRACK!

I looked to my left. Two nearly identical masses of pale blue translucent stone stood rocking back and forth. Eighty or ninety humans in decaying opulence lay about the rocks as if they'd been flung in handfuls.

A few started to get up. The leader shook his fist and screamed, "Hoarders! Misers! Next time—Come on, men, we need a bigger lead time!" More got up, shaking their heads dazedly, and two groups attacked the two huge stones and began painfully rolling them in opposite directions. The other outfit, the one furthest away, was dressed differently: also in rags, but these had never been much to start with.

"Hoarders and Wasters," said Benito. "Natural enemies. They will try to crush each other with those rocks for all eternity."

"Benito, I'd swear those rocks. . ."

"Yes?"

"Skip it. I'm getting so I'll believe anything." We started across the plain. A couple of hundred yards ahead of us was a hedgerow of some kind, and sounds filtered through it. The misers were rolling their rock back that way, getting good distance for another run. We followed until they reached the hedges and stopped. Then they turned to, pushing it the other way. A prim-looking bearded man in the remains of a dark suit from the 1890's shouted toward the other mob. "You threw away the good in your lives! Now pay!"

I couldn't stand it any longer. I grabbed a wild-eyed matron by the shoulder. She struggled to get away. "Let me go! We have to crush those wasteful—"

"Ever manage to do it?"

"No."

"Think you will this time?"

"We might!"

"Yeah, sure," I said. "What would happen if you stopped rolling the rock and took a break?"

She studied my face for signs of Mongoloid idiocy. "They'd cream us."

"Suppose you both stopped?"

She pulled away from me and ran to put her shoulder to the boulder. The mob heaved it over a bump. She shouted back to me. "We couldn't trust *them*. Even if we could. . . we can't stop. Minos might. . ."

"Might take it away," I guessed.
"I *thought* I knew that color."

Several of them glanced at me suspiciously. A couple of the men left the rock to advance on me.

"Hey! Hold on! I couldn't steal it by myself. I don't *want* to."

They relaxed. One, a man wearing the remains of a peasant smock, said, "Many of us hae been here for unco time. Yon Queen Artemesia says when first she came, there were still facets upon't. It must hae been a bonny sight." He sighed wistfully.

It must hae been, yeah. *Hey, Carpentier, how long would it take to wear all the corners off a twelve foot diamond?* I turned back toward Benito. He was talking to someone on the ground.

It was a man with both legs crushed. The rock must have rolled over him. He was still in shock, because he wasn't screaming in pain, but he would be. Blood seeped from the jellied mess that had been his legs.

"For pity's sake," he said, "pull me out of the way. Maybe they won't get me a few times, and then I'll be able to keep away from them—"

He'd had it. Mind gone with his body. It was just as well. We ought to be taking him to a hospital, but why bother? He'd had it.

"We are leaving Hell," Benito said. "First we go down—"

"Oh no! I know what they do to you down there! Just move me, just a little, please?"

I wondered where to put him. The ledge was hard and flat, baked adobe, with no cover between the cliff and the hedgerow. But we

couldn't leave him out here. I took him under the arms and dragged him over against the cliff to die in peace.

"I thank you," he whispered.
"What's your name?"

"Allen Carpentier."

He seemed to brighten. "I had all your books."

"Hey! Did you?" Suddenly I liked this man.

"Too bad I don't have my collection. I could get your autograph on them. I had . . . all of everyone's books. Did you ever hear of my collection? Allister Toomey?"

"Sure." I'd known many book collectors, and they'd all heard of Allister Toomey, to their rage and sorrow. Toomey had spent a considerable inheritance on books, all kinds of books, from double four-edges to first editions to pulps and comic books that were just getting to be worth owning. Much of what he had owned had been unique, irreplaceable. He'd kept them all in a huge barn he'd managed to hang onto somehow.

He'd spent everything else on books: there was no money left to take care of them. They mouldered in that barn. Rats and insects got into them, rain dripped through the roof. If he'd sold a few of them he'd have been able to take care of the rest. I'd known a lot of collectors, and they all had a tendency to brood over Allister Toomey.

"I guess I don't have to ask why you're here."

"No. I was both a . . . hoarder and a waster. I lay between both groups. . . I suppose it's fair enough. I wish I'd taken . . . one or another of those offers. But what

could I sell?"

I nodded and turned away. He continued talking, to himself now. "Not the complete Analog collection. Not the Alice in Wonderland. It was autographed. Autographed!"

Goodby Allister Toomey, who'd died twice now. I waited with Benito until the mob swarmed past with their bouncing boulder, then we ran across.

CRACK!

We found a hole in the hedgerow and scrambled through.

There was only a narrow ledge beyond the hedgerow, then a cliff. Thick mists hid the bottom, but it was a long way down. There didn't look to be any way over it.

We walked along for miles. There were other groups behind the hedgerow (**CRACK!**) all shouting and screaming (**CRACK!**) in various languages.

Then the sounds changed. Machinery, rivet guns, hammers ringing, the sounds of workmen and their tools.

Tools! We'd need tools for the glider. I began to run ahead.

A TREMENDOUS CHUNK of the ledge had collapsed, and the chasm ran right across, from the cliff on the downhill side to the base of the cliff towering above. A stream ran through it and it had cut the gorge even deeper. Far below we could see people working frantically on a dam.

Another group was just as frantically tearing it down.

At our own level there was a similar contest. One group was trying to build a bridge across the gorge, and another worked to disas-

semble it. Fifty yards in either direction were more bridge builders and destroyers. It seemed like a lot of wasted effort.

I looked to Benito, but he only shrugged. "I have never been to this part before. I do not think Dante came here either."

The group just in front of us were steelworkers, slapping together I-beams, girders, plates, anything they could manage, fastening it with hot rivets and hammers. A small forge blazed away to heat rivets. I looked at all the work without comprehension—until I saw Barbara Hannover.

Suddenly it came to me. I'd known Barbara a long time. She wasn't cruel, and she didn't hate people, but she loved wildlife more. Whatever anyone proposed, a new bridge, a new freeway, housing development, mine, power plant, oil well, or wheatfield, she had a million reasons why you couldn't do it. I honestly think she'd have let all the Kansas wheatfields go back to prairie and buffalo if she could have thought of a way to manage it.

Add to her fanatic streak a Harvard Law School degree and one of the sharpest brains in the country, and it was easy to see why lovers of progress shuddered when she took an interest in what they were doing.

And naturally she was tearing the bridge down. I had an idea and looked closer at the construction workers. If Barbara was in this part of Infernoland, Pete couldn't be far away. . .

And there he was, bucking rivets. Pete and Barbara had been married for awhile. A short while. Just as she couldn't see a housing tract

without wanting eviction writs and bulldozers, he couldn't see a nice place on the trail without wanting to improve it with a log cabin. I'd gone hiking with him once. The whole fifty miles was one long development plan, with ideas for improving the trail, building hostels, constructing artificial beaver dams, putting in handrails where the climb was steep. . . I almost killed him before we got back to the car.

"It makes sense," I told Benito. "Artistically. The way anything else down here makes sense. Pete and Barbara were both fanatics."

Neither of them had noticed me. I couldn't see how steel-working tools would help anyway. But upstream was a wooden trestle bridge, with a group just finishing it while another tried to get at it with saws.

I looked at the saws and lusted. With a saw and nothing else we could build a glider. Other things would be useful, but they were easier to make than a saw would be. I had to have one.

The funny thing was that they used each other's tools. One guy would be hammering away to put a beam in place, and another would be sawing it in half—and while they screamed insults at each other, they did nothing else. The rules in Infernoland were more complicated than I'd have thought.

Or the robots were programmed funny.

But that sure looked like Pete and Barbara.

I waited until a progressive type laid down his saw, then started for it. Too late. A thin-faced woman grabbed it and had at the trestle-piece he'd been trimming to fit.

The next time I was quicker. When she set the saw aside for an ax, I grabbed it. There was a drill-bit on the ground next to it, just a twisted chunk of steel more valuable than its equivalent in diamonds, and I got that too.

You'd have thought they *were* diamonds. Madam Hawkface started for me with the ax, and her builder companion was right behind. He didn't need an ax. He could have made three of me.

"Run!" I shouted.

Benito heard. We dashed for the trail leading down into the gorge. It was narrow and twisted, but it looked safer than what we were leaving.

I'd done one thing. I'd got those two crews to cooperate for the first time since Infernoland was opened to the public.

Unfortunately, what they wanted to cooperate on was tearing me to pieces. The trail turned a corner, then swooped down the cliff. We followed it.

VIII

THERE WAS A LEDGE ten feet below the lip of the cliff, and we stopped for a moment to catch our breaths. I thought I felt the cliff tremble and asked Benito about it.

"It is not any place to stay," he warned. "Allen, you will find that there is no safe place in Hell. Wherever you stop—well, you won't like it."

"I can believe that." The thing to do was get out of here, and the more I thought about it, the better the glider looked. Now I had a saw

that I could use to cut frames and ribs and stringers, if I could find anything to cut.

I still wondered what we'd use for fabric, but somewhere there had to be a storehouse for the costumes. The gowns Benito and I wore would do. It was a close-woven fabric, very tough, and it shed most of the dirt and muck we'd crawled through. I lifted the hem and tested the weave by blowing through it. It didn't let much through. It would do fine.

The ledge heaved again. I wondered if this were something for our benefit, then laughed at myself. Earthquakes on call? The Builders were powerful, but *that* powerful?

We scrambled along the ledge until we were stopped by a waterfall pouring out in front of us. The water was black and dirty, and it stank like a sewer outfall, but the water rushed downward, and it had carved a bed in the cliff side. There were handholds in the sides of the notch the stream had carved.

How long would it take a stream to carve that? It would depend on what the rock was made of. And of course the Builders could have carved the notch themselves, though it looked natural enough.

After a while we reached the bottom of the cliff. The ground fell away at a steep angle. We found a path down it, along the stinking stream, twisting and turning along lower and lower, with steep cliff edges in places.

It would be an ideal place to launch a glider if we could get one up the slope. Drag it up here and over to one of the drop-offs, and push. Yeah. It looked better all the

time, but first we had to build the glider, and what was I going to build it out of? I wanted to see those trees. I clutched the saw closer to me.

Benito was staring at me. I stared back.

"Forgive me," he said. "You hold that tool in a way I have seen before."

"Yeah?"

"By monks riddled with self-doubt, and clutching a crucifix to reassure themselves their religion is true."

"We'll *need* this. We'll need other things too. Wood, and rope for the glider—"

"Will that do?" He pointed downward.

We were almost at the bottom now. We faced a stinking swamp. Thick fog hid most of it, with only temporary glimpses through. Things thrashed around in the filthy water, but there were also bushes and trees hung with vines. Wood! Vines! Certainly I could build a glider out of those! "Now all we need is fabric. There must be a supply dump in this place. Or a laundry. Something."

Benito sighed. "There is."

"Great! Can we get a lot of those gowns?"

"It will not be easy."

"Easy?" I laughed. "Who cares, as long as we get *out* of here!"

Benito's determined look was very like a bulldog's. "Very well. I will help you get what you need. I will help you build your glider. I will help you fly it, in whatever direction you choose. In return, you will promise me that if this mad scheme fails, you will come with

me to the real exit."

"Yeah, sure, sure." I wasn't really listening. I was too interested in the swamp below us.

The things bubbling around in there were people. Some of them just lay there half submerged, bubbling out filth and talking nonsense. Others fought each other, for what I couldn't make out. They roiled the stinking waters, washing up slimy things. Thick fog hung all around and I had only glimpses of anything more than a few feet away.

"This way." Benito waded out into the slop. He seemed to know what he was doing, because it wasn't very deep, just to our ankles. The gup squished inside my sandals, slimy and thoroughly unpleasant. Every now and again there was solid ground a few inches above the muck.

We picked our way through low-hanging trees and bushes. I fingered the wood and tried my saw on one of the trees to cut off a branch. It seemed strong enough and quite springy. I hacked off a chunk of vine and it was too tough to break.

We could! We really could build a glider!

As we got deeper into the swamp there were fewer people, but I could hear curses in every language I'd ever imagined, people screaming at each other, and the sounds of blows. Sometimes a filthy shape would try to climb up onto the ground where we walked, but others would grab it and pull it back into the mire. I shuddered. Why did they do that?

"The wrathful," Benito said.

"And the sullen. The worst offenders in upper Hell." He was about to say something else, but he ran into something lying on the trail and almost fell.

It was a man, filthy with the muck, lying in foetal position. His eyes were open and staring at us. He glared, not at us, but at the universe in general.

"Hello," I said.

"Come with us," Benito added. "There is a way." He didn't sound hopeful, and of course there wasn't any response. "Remember there is a way. Downward, accepting everything—"

"Come on, he's catatonic." It bothered me, Benito preaching to a rubber-doll catatonic. Was my loony bin theory right after all? Psychodrama on the grand scale?

Then why was I here? And Jan Petri, and Pete and Barbara? It was as if the Builders had revived everyone who had ever lived! Then set out to cure the crazy ones. Did they think I was one of those?

There was another one on the trail, and he wasn't catatonic at all. He stood there glaring at us, while others thrashed in the muck at either side of him. To get past we'd have to wade out into that, and from the ripples we would not only be over our heads, but among the fighters. They'd never let us out.

"Excuse us," Benito said pleasantly. "The trail is wide enough for us to pass if you will step forward two paces."

"Bugger off."

"Surely you will not stand in our way?" Benito was still very pleasant, but there was an edge to his voice.

"Took me a hundred years to get up here," the figure said. "*You* never *have* been in the muck. If it's good enough for me, it's good enough for you."

He was a big man with powerful arms and he seemed to mean it.

"Stand aside," Benito said. He was giving orders now. "You may come with us if you will—and if you can, which I doubt. But you will not prevent us from going." Benito's voice still had the ring of authority that had cowed Minos, and it shook the guy momentarily.

"Don't I know you?" he said. He stared at Benito. "I'm sure I know you. Well, whoever the hell you are, get past me the same way I got up here."

"Friend, you leave us no choice," Benito said.

"Aha! I *do* know you! You're Ben— Hey! Let go! Hey!"

Benito grasped him by the shoulders and lifted him as easily as I would a child. I gaped as Benito flung him out into the marsh. He wasn't even breathing hard. "Come, Allen."

"Yeah. Sure." I followed numbly, wondering who Benito really was. A professional wrestler? Circus strong man? What he'd done wasn't impossible. I'd seen it done before, but not often, and Benito didn't look that strong.

XI

EVENTUALLY WE GOT THROUGH the trees and brush to open water. There was a big black tower at the edge. I couldn't see anyone in the tower, but suddenly there was a

light in the top window. It flashed, ruby-red, out across the marsh.

Red? Ruby? A laser! Not magic, just a laser signal from an old stone tower. Far out in the murk over the water there was a flash of light, blinking, the same color as the signal.

"Phlegyas will come for us now," Benito said. "You must be careful. Say nothing you don't have to say, and as little of that as possible. Let me handle him."

"Sure. Why?"

"Because we are fugitives and we are approaching the, ah, administrative centers of Hell. There are demons here. Guards. They can do terrible things to us."

"Can't they just." I'd seen enough atrocities already. Were the Builders the crazy ones? They seemed to like pain.

From somewhere behind us there were screams of rage and agony, and splashing noises. I thought I saw ripples in the open water ahead of us too.

Then something took shape in the gloom ahead, something moving toward us.

It was a boat. A big man, bearded, with a low gold crown on his head, stood in the stern with an oar in the sternlock. He sculled slowly, but that boat *moved*. I almost laughed. He certainly wasn't putting out enough effort to get that kind of speed. The boat must have a hidden water-jet or something.

"I have you again!" the man cackled. "Ah, Benito, caught again. Good work!" He looked at me closely and his grin faded. "Who are you?"

I didn't answer.



"Were you sentenced to Lower Hell?"

"Phlegyas, mind your own business," Benito said. "Bring the boat to the shore. I do not care to wade in your filthy swamp."

"Don't like cold, eh?" Phlegyas seemed to find that funny. "Well, you won't have cold feet long, where you're going! Get in, Benito, get in. The other one has to stay here, of course. I have orders concerning you, but not him." He looked at me again. "You don't have a pass from Minos? No papers? You can't come."

"He will come," Benito said. "This has been willed where what is willed must be. Now bring the boat to shore."

Phlegyas shrugged. He moved the oar and the boat rammed the bank, bow first. "All right, all right, you have the formula." His voice was a nasty whine of complaint. "It's sure

been hell here since Dante published that book. You'd be surprised how many try that on me. Nothing I can do about it, either."

We scrambled onto the boat and sat gingerly. I noticed that the boat didn't sink deeper by an inch. Didn't we weigh anything? In that case we could walk on the swamp! But that was silly, because the swamp rippled and bubbled with people—and we'd sunk to the ankles in the muck. I could smell the stink on my feet.

Every now and then a nose would appear above the water as someone caught a breath, then vanished again. How many were there in that swamp? I could hear screams of rage and agony and pain, and cursing in all languages, but I couldn't see any details in the half-light and the fog.

Phlegyas sculled rapidly and the boat shot away from the bank. The

fog enclosed us in a circle of dark water rippled with shouting faces and with the chicken guts and other filth that poured down from the land of the Hoarders and the Wasters.

Sometimes a filthy claw would reach from the water to clutch at the gunwhales, and then Phlegyas would smash it with a six foot pole he kept in a socket ready to hand. He sculled easily with one hand.

"You know, that formula doesn't work with the real supervisors," he said. He reached to straighten his crown and gave us a sour look. "They took the power of decision away from me. I made a couple of mistakes, just a couple of lousy mistakes, and now they think they can do better than me. Over two thousand years of service here, and upstarts have more power than me. It isn't fair, you know. Bastards. Stupid bastards. But they won't let you in without a pass, you watch and see."

"Old man, be silent," Benito said.

"Humph." Phlegyas sculled more rapidly. The boat shot through the water. Now I could make out dim glowing red. The fog began to lift, and we could feel the heat.

There were walls ahead of us. They had towers, and some of them were cherry red. The radiated heat was already uncomfortable. A low, wide mudbank stretched out from the walls to the swamp, and I could see a landing dead ahead, at the end of a narrow bay.

We headed toward it. A man came out through a doorway in the wall. He was old and bent, and he hobbled. He carried a box about a yard square and an inch deep.

He shuffled to the water's edge and used a shovel to fill his box with mud. Then he turned and ran, his robe flying out behind him as he darted back into the door he'd come so slowly out of. It didn't make sense.

I turned to Benito, but he only shrugged. He didn't know either.

We passed the entrance to the bay. "You may let us out at this landing," Benito said.

"Nope." Phlegyas continued to scull.

"It would be more convenient."

"Yep."

"Then why don't you do it?" I demanded.

"Because I don't have to," Phlegyas answered. He continued to scull until we reached another landing. "Regulations say ferry terminal to ferry terminal, and that's where I go. Nothing about any stops in Himuralibima's Bay."

Benito frowned, but he didn't say anything. The boat reached the dock area. There was no one to meet us, and I wasn't sorry.

"Off, off," Phlegyas shouted. "There's more coming. No rest for an old man, none at all. Off, off." He reached for his cudgel and we scrambled ashore before he could smash us with it. As soon as we were off he was sculling away, headed for the other shore like a motorboat.

The city was maybe a quarter-mile away across hard stinking mud. The walls were hot, although not as hot here as further away. A mile to our left was a tower that glowed cherry red.

Thermals! There'd be thermals here, if a glider could get across the

swamp. It would take luck and we'd have to drag it pretty high up that cliff to make it, but it could be done.

"Be very careful," Benito said. "I will have to deceive the officials. Do not undecieve them."

"You mean you're gonna lie? Oh, Benito, that's sinful. You could go to Hell for telling lies."

He took it seriously. "I know. It is one reason I am here."

"Um, but this *is* in a good cause. . ."

"I thought my deceits were in a good cause." He shrugged. "The Commandment is against false witness, and by extension, against malicious deceit, and fraud, and perversions of honesty and honor. We shall not do that, and as you say, it is in a good cause. Or so I hope. We tread dangerous ground, Allen."

"Come on," I said. I started off toward the door I could see ahead of us. Fat chance I'd ever make that joke with *him* again.

It was getting warmer all the time. Off to our left, near the blazing-hot tower, were the remains of a *big* gate, torn off its hinges. Things walked guard duty in front of it. They were just far enough away, and there was just enough fog and steam, that I couldn't see them clearly. But the shapes seemed odd, twisted out of true. I didn't want to ask about them.

We came to a Dutch-type door open at the top and with a counter on the lower half. Heat poured out through the opening. A bored-looking man in a high stiff collar, something out of a Dickens novel, was inside in a little office. His face

was narrow and pinched, and the heat couldn't have improved his disposition. He had a desk like a woodcut from the Scrooge story, a tall thing he stood at. There wasn't a chair or a stool in the room. We waited at the counter.

And waited, and waited, getting warmer and warmer, while the clerk fussed with papers on his desk. He seemed to be reading every line on an enormous form a dozen pages thick. Every now and then he used a red pencil to mark something. When he continued to turn the pages and scrawl notes without even looking at us, I pounded on the counter.

"Are we invisible?" I demanded.

"A moment, sir. Just a moment, please. We're very shorthanded here, sir. You'll have to wait, sir." He made each 'sir' a curse.

"You would be well advised to attend us." Benito's voice had that edge to it, a note of warning. The clerk looked around uneasily. He obviously didn't recognize either of us. Hardly surprising.

"Your papers, please."

"We have none," Benito answered.

"Oh my, oh my, one of those days," the clerk muttered. "Well, if you haven't any papers, you can't come in. The rules are very strict. You'll have to go back for papers." He turned back to his desk and started looking over the files on it.

"We have an errand inside," Benito said. "You do not help you record by delaying us."

The clerk looked back nervously. He examined us closely again, noting the slime on our gowns and the stench of our sandals. That seemed

to cheer him. "What is your station inside?" he asked.

"No fixed post," Benito answered.

"I can't help you, sir. I'm only record-keeper for the Sixth Circle. Next window, please." He turned back to his desk. We waited. Benito whistled something monotonous. Finally the clerk turned back. "You still here, sir? I *told* you, next window, please."

"It is to the Sixth Circle that we must go now."

"Why didn't you *tell* me," the clerk complained. "Very well." He reached into a cabinet and produced what looked like manuscript books and short stubs of pencil. "If you don't have the proper papers, you'll have to fill out these forms."

They were twenty pages long, covered with small blanks, and there were nine copies. Not only wasn't there any carbon paper, but the blanks were arranged differently on each copy, although they all asked for the same information.

"I think we will not bother," Benito said.

I flared up. "What the hell do you want all this for? Great grandmother's blood type? Why should I fill this out?"

"You *have* to." The clerk was getting more and more irritated. "You can see they're all blank. You can see they have to be filled out. Right at the top, see, it says, 'replacement for lost papers, application for, D-345t839y-4583, to be submitted in nine copies'. I can't do anything for you without that information."

"Aren't there exceptions?"

"Of *course* there are exceptions,

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sir. One was made over two thousand years ago. Before my time, but they still talk about it." He shuddered. "But you are obviously not Him. Is either of you a living man? Can either of you summon angels? Those are in the book too." He glanced at a shelf of loose-leaf folios above his desk. "Volume 61, page 894, paragraph 77.82—I'm *glad* we changed to decimal system, but most of us didn't like it—it says very plainly, anyone who can summon angels may pass. But if you're applying under that ruling you'll have to go to the main gate. *Don't* prove you can do it. Just go to the main gate and they'll take care of you."

"But you will not let us pass," Benito said. "Not even if I tell you that if you do not you will be in grave trouble?"

"I know my duty. You will not come through."

"Very good. You have done well," Benito said. "If you had let us in, we would have reported it. Now you have a favorable report coming. Who is your supervisor?"

The clerk stared at Benito. "Mrs. Playfair. Formerly a postmistress. But—"

"Oh, my," said Benito. "I won't be able to help you after all. It would do no good to give the report to *her*."

The clerk was unsettled. "Why not, sir?" The *sir* wasn't a curse any longer.

"I am not permitted to say."

"Ah. You mean—" He gulped. Whatever he imagined was going to happen to Mrs. Playfair worried him excessively. "But what will happen to her people? What will become of *me*?"

Benito looked crestfallen. "You know the rules—"

"But I've done everything *properly*! My files are in perfect order—oh dear, oh dear, I *told* her she shouldn't have let that man in the records room, I *told* her he wasn't properly credentialled, I *told* her! It was all her fault, I *told* her. . . my files are in perfect order. And they won't even look at them, they'll just—" He was actually wringing his hands as he looked around his office at his desk and files.

Benito frowned. "It would be a waste to have you in the boiling pitch—"

"IN THE PITCH!" the clerk screamed.

"Are you certain your files are in perfect order?" Benito demanded.

"Of course they are! Here, you can see for yourself." He did something that opened the gate.

Benito and I crowded in. Benito took down a volume of the rule book and leafed through it. "Keep this up to date, do you? All revisions in place as they come in? Where are your unfiled revision sheets?"

"There are none," the clerk said primly.

"Hmm." Benito lifted the forms on the clerk's desk. "*This* is not in order!" He leafed through quickly.

"But I hadn't checked the seventh copy yet!" the clerk moaned. "I was doing that when you interrupted me! You can't report me for that, I was trying to give you service, and—"

Benito handed the forms back. The clerk looked through and extracted a bulky set. There was pencil all over the first six pages, then the writing medium changed to something darker. Benito looked at it curiously. "This is hardly legible."

"He used up his pencil," the clerk said. "Volume 4, page 98, paragraph 6, states that no applicant can have more than one pencil. So I made him fill it out with something else. He used blood."

"His own?" I asked.

"Where else would he get blood?" The clerk turned to Benito. "Who is this man?"

"In my custody. Witness. Not your case, don't worry about it." He handed back the forms. "This seems to be in order."

"Thank you." There was relief all over the clerk's face.

"One item was very difficult to

read. You should be more careful next time."

"Yes, sir. Certainly, sir. Are you finished with it?"

Benito nodded. The clerk took the form—copy seven of nine copies—and tossed it into a wastebasket in the corner. It burst into flames. I stared. A man had used his own *blood* to fill that out? I glanced at the forms the clerk had handed us.

Sure enough, at the top of copy seven, it said, "DESTROY". Copy eight went to "applicant" and copy nine was "To be routed to the statistical section".

"What will be the charges against Mrs. Playfair?" the clerk asked, his voice low and confidential.

Benito frowned. "I understand there are shortages in uniforms and supply—"

"But we don't have anything to do with that."

"Precisely," Benito said knowingly. Comprehension dawned on the clerk's face. He nodded.

"We're going to check that now," Benito said. "Keep up the good work, uh—"

"MacMurdo. Vincent MacMurdo. You'll remember?"

"Certainly." Benito opened the inner door and held it for me. I went through, trying not to hurry.

X

BENITO FOLLOWED and closed the door behind him. I slumped against the wall, convulsed by silent laughter.

I jumped away fast. The wall was burning hot. I smelled scorched

cloth. Another second and I'd have had a bad burn.

We were in a corridor that stretched to infinity in both directions. It was about ten feet high and wide, and there were doors at intervals along it. People hurried in both directions, paying us no attention.

And there were all *kinds* of people! Men and women in flowing robes, in US Post Office uniforms, in colonial costumes, in the high collars the Dickensian clerk had worn, military uniform, Chinese mandarin robes, modern business suits, coveralls with insignia of planets and stars and sunbursts, a whirl of scurrying humanity shoving past us as if we weren't there.

Nobody was going to notice us for our funny clothing.

The old man we'd seen outside rushed past us, almost running. He carried a box of fresh mud, and poked at it with a stick as he ran. We watched as he turned through a door and out of sight.

Someone had stopped beside us and was laughing. He wore a Roman toga.

"Do you speak English?" I asked.

"Certainly." He was still laughing.

"Who was that?" I asked.

The laughter stopped and the man glared. He was carrying some kind of wood plank with wax on it. There were letters cut in the wax. "You are new here?" he demanded.

"From another division," Benito said quickly. He lowered his voice. "Special assignment."

The Roman drew away from us. "Surely you have no interest in

Himuralibima? He is our most honored civil servant."

Benito gave a knowing look. I still had a blank stare.

"Hammurabi's secretary, you know. Invented record-keeping."

"Ah," I said. *Hammurabi? Oh, all right, he's Hammurabi's secretary. And I am Napoleon Bonaparte.* "You'd think after all these years they'd let him slow down a little."

"But he *can't*," the Roman protested. "They've offered him retirement, but he has to fill out the proper forms, and in his case, of course they're in cuneiform. And you have noticed how hot it is in here?"

I couldn't stand it. I tipped my head back and roared with laughter. It rolled out, gales of laughter, choking me, as I thought of that first beaurocrat trying to complete his retirement papers before the mud dried from the heat. . .

. . . Himuralibimas's Bay?

Benito merely nodded. "Fitting. I am certain you have work, Signor—?"

"Uh, of course," the Roman said. "Your pardon." He pushed past us and walked briskly down the corridor. Our clerk came out of his office. The Roman stopped and they talked in whispers.

"Allen, must you ask unnecessary questions?" Benito demanded.

"I'm a writer. Of *course* I ask questions."

"Please do not. Not in here. For the moment we are safe. They think—" He motioned with his eyes.

I turned my eyes only. The Roman had stopped someone else and was whispering to him. The man

he'd stopped, a young man in 1930's US Army uniform, nodded. Pretty soon he stopped someone and both looked clandestinely at us. They stopped others. . .

"They're telling stories about us," I said.

"Yes. Let us hope they are telling the proper ones. Now we must find the supply center."

WHEREVER WE WENT we were preceded and followed by whispers. People got out of our way, too. If we wanted to go through a door, if we even looked like we wanted to go through a door, there was a scramble to hold it open for us.

"They sure are scared of you," I said. "They know who you are." Which was more than I did.

"I think few of them have seen or heard of me," Benito answered.

Oh, really? "You know your way around here."

"No. I know my way around beaurocracies. This one is no different from any other."

"You were a beaurocrat once?"

He hesitated. "I suppose you might say so."

"Exactly what—"

An anguished voice drowned me out. We were passing an open door, and a woman's voice screamed in rage and pain: "But that form is twenty-seven pages long! All that for one tool?"

I looked in, caught a familiar hawklike profile, turned back and kept walking. "Don't look now," I said out of the corner of my mouth.

The other voice followed us. "You should keep better track of your handsaw. The rules are very clear. . ."

At the next door there was a long line of naked people, fat men, pretty girls, ugly women, studs, every form and variety of mankind: the reception desk at a streaker convention. They were trying to get to a counter where some fat guy handed them clothing while two beanpole women took information down on more forms.

What was this? The supply center for Infernoland? Were these employees, or spectators, or—
—or what?

We got in line, the only ones with clothing who did. A thin guy in a medieval bachelor gown came in, went behind the counter, and whispered to the supply clerk. The clerk summoned his two old biddies and they whispered together.

Finally one of the women came out from behind the counter. She wore a coverall of a kind I didn't recognize, dark blue with strange insignia. "What may we do for you?" she asked. She was trying to be pleasant and it was obvious that she'd never learned how.

"This man was given the wrong clothing," Benito said. "He is wearing the same thing I am. In our section we do not give junior courriers the uniform of a supervisor."

She frowned. Benito didn't look to be dressed like a supervisor. He looked like an escapee from the violent ward. So did I. But he only stared back, and after awhile her eyes dropped. "What should he wear?" she said.

"Loincloth. And there are nine senior men in my section who have loincloths and no gowns. It is intolerable."

"Oh." She didn't know what to

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Happy reading!

E.B.W.

make of that. She went back and whispered to the other biddy.

Meanwhile the line moved up. The clerk looked at papers and then at the fat man at the head of the line. He went into the shelving stacks behind the counter and came back with bright gaudy clothes, slashed velvet sleeves and tight trousers. They were obviously too small.

"Ungood. Double plus ungood. Too small. Wrong period," the fat man protested.

"Tough shit, buddy. We all got our troubles. Next!"

The biddies came over to him and whispered. He looked at us. "Uh, you sirs—can I help you?"

THREE HELPED CARRY the gowns, and a fourth brought up the rear with stacks of papers flowing with seals and ribbons. Benito paid no attention to me; he just walked ahead as if he assumed we'd all follow, which we did.

We turned a corner and he stopped. "This will do," he said. "Give those things to Allen. You have your work to do, and this is his task."

"Certainly, sir. Is there nothing else we can do for you?" This one wore a policewoman's uniform, vaguely American, though the shield was shaped strangely. She talked without using articles. When she spoke to her subordinates she used a language I didn't know. I was afraid to ask her deathdate.

"I said this will do," Benito said. "We will be met by others. You may go."

"Thank you, sir." The sow

turned and stalked away followed by the others.

When she was out of sight Benito seemed to wilt. His straight posture was gone, the high angle of the chin vanished, and he slumped.

Then he laughed. "So. Nothing changes. Now we must get out of here before someone tells this story to an internal security agent."

"They think—what? That we're important officials?"

"No. Of course not. They know we are only pretending that."

"Then what—"

"But they cannot be sure. We *might* be important officials. But most of them think we are secret police."

"But how do you know there *are* secret police?"

Benito looked very sad. "Allen, there have to be. You cannot run a beaucroatic state without them. Come."

We found a door to the outside and Benito surrendered one of the documents he'd collected. We passed through and were out on the mud flats again. A stinking breeze wrapped itself around me, deliciously cool, and I said, "Ahh. . ."

Far to our right the old man had just filled his box of mud again. He ran for the gate, writing frantically.

XI

I WAS SMILING as I turned. The robes I held stacked on my head, an ungainly load. "Now what?"

Benito was staring across the swamp. "I don't know."

"Ah?"

"We cannot possibly persuade

Phlegyas to take us back. I fear we must swim." He set his own stack of robes down, shook out the top robe and used it to tie the rest together.

Swim? Through *that*? It wasn't the garbage that turned me off. It was the bubbling of angry people in and under the water. If we met anyone like the guy Benito had thrown back into the water. . . if we met half a dozen of them while loaded down with heavy wet stacks of robes! "Wait a minute, Benito. Let's try something else."

"Lead on, then, Allen."

I stopped to tie my bundle as Benito had tied his. Then I turned right along Himuralibima's Bay. The choice was deliberate: here there were windows and doors along the wall.

I was wading thigh-deep and not liking it, but it was the only way to learn what I wanted to know. At worst I was postponing our swim. At best— "We've got plenty of time. You keep saying so."

"So we do. I wonder what you expect to find."

My foot brushed something soft.

She was clearly visible beneath two feet of water: a longboned black woman with her hair floating like seaweed around a slack face. I asked a stupid question. "Is she dead?"

"Of course," said Benito.

She was curled in foetal position. She stayed rigid as I rolled her to bring her head above water. There was no sign of decay, and no sign of life. But I felt for a pulse in her neck, and found it.

"Catatonic." And I started to get mad. "Another catatonic. Of all the

dirty things. We don't persecute crazy people for crimes. What right do the Builders have to put crazy people in Hell?"

"The Builders?"

"Never mind. Of all the dirty things. Benito, can you handle two bundles for a minute?"

He took my robes on his other shoulder. He waited while I reached into the water to adjust the woman's position.

Catatonias. It's a rare enough disorder, but almost incurable. You can find one or two catatonics in almost any mental hospital. They afford opportunity for endless jokes, all identical; for a catatonic will take any position you pull him into, and hold the pose indefinitely.

Every intern thinks he is the first to see the possibilities. He will lead the resident catatonic to the hospital cafeteria, place him just outside the door, and leave him there with his thumb to his nose or his middle finger rigidly extended. Hilarious!

Sometimes he gets a surprise. . .

I had to stand on her knees to straighten her legs, but finally I got them stretched out in front of her. She was still leaning too far back, her eyes staring at infinity through a half-inch of scummy water. Still standing on her knees for leverage, I reached beneath the water, took her shoulders and pulled her up to sitting position.

Now she'd be able to breathe.

. . . sometimes he gets a surprise, your antic intern. He will have just finished adjusting the patient's hand with thumb properly to nose, when the hand becomes a fist and the first becomes a missile warhead. Catatonics are hideously strong.

They have to be, to hold one position forever.

And she was sitting down. She lashed straight out and tried to punch a hole through my groin. She damned near made it. I whooped and doubled over, sucking air. Sucking, as it turned out, filthy water as I rolled helplessly over into the swamp.

I tried to uncurl. My lungs still wanted to suck water. Inch by inch, I fought my mouth to the surface, drew a lungful of sweet stinking air, and screamed.

Benito was sloshing toward me. I gestured him back. If he dropped the robes to help me, they'd quadruple in weight!

He stopped. I waited for the pain to ease a little, then tried to stand up. When I put weight on my legs it felt like she'd hit me again. I moved toward shore, doubled over.

The woman's lower lip was just at the surface of the water. She held her arm straight out, first clenched. "Don't make waves," I told her sourly as I passed. She didn't respond, and she still looked dead. Water streamed from her nose.

I DIDN'T STOP for any more catatonics. Gradually I was able to straighten up. Benito followed patiently, carrying both bundles, both of us wading thigh-deep in water. I ignored the floating garbage. It wasn't getting me any dirtier than I already was.

The texture of the bottom had changed. Beneath a film of frictionless mud there were tilted slabs that had sharp corners and tended to slide. . . I stopped. Benito stopped behind me.

I said, "Feel that?"

Benito didn't get it. "What should I feel?"

"Himuralibima's Ford, that's what! No telling how far it goes, but it should get us a good distance across the swamp. Here, give me that." I took one of the bundles and started into the swamp. The footing was chancy, the slabs tended to slide, but it was better than swimming.

And I, feeling that I had earned the right to brag, bragged. "All along I wondered where the dried mud was going. It'd shrink a little when the water evaporated, but even so, that bay is *huge*. Where do they dump the slabs after Himuralibima gives up? Maybe I'd find a mountain of them. Or maybe they don't want a pile of ruined clay slabs in their working area. Maybe they're afraid of getting ticked off for sloppiness.

"So, I was right. Someone's been dumping the slabs in the bay. Every hundred years he has to walk a little further. Otherwise they'd show above the surface."

"Very clever, Allen."

"*Thank kew.*" No telling how far it would go; but we were a good distance into the swamp, and the water was only up to our calves. *Hold your breath and make a wish, Carpentier. Or just hold your breath, the water could be over your head any second.*

WE WERE NEARLY across before it ended. The slabs dipped, and I followed the dip, walking on eggs, with the stack of robes balanced on my head. I was chin deep where the mud turned squish-soft.

So far, so good. I found an underwater ridge and followed that going waist deep, then higher. I was wading ashore, with Benito behind me, when our luck ran out.

The broad-shouldered man who blocked our path was the same who had blocked our path before. He shied back when he recognized us; and then he saw our situation, and grinned.

I turned back to Benito. "Mind if I try this?"

"If you think it will help."

"I wrote science fiction, remember? I ought to be able to explain a complicated idea to a moron."

I hadn't lowered my voice. The broad-shouldered man advanced on us, saying, "Who's a moron?"

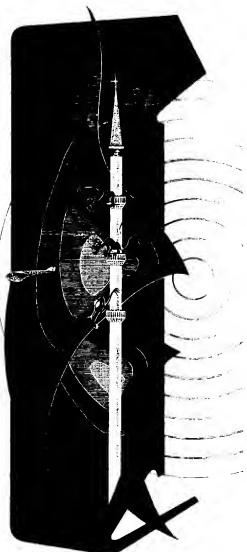
"Don't worry about it," I told him. "You've got worse problems than that. Remember the flying lesson?"

His grin was back. "I'd like to see old Benito try that with his arms full of bedsheets!"

"He won't be able to," I said, keeping my speech slow and distinct. "He'll have to put them down. In the swamp." Pause. "They'll get all dirty." Pause. "Imagine what that will do to his temper."

I watched his eyes. It was getting through to him. I said, "Why don't you step aside while you think it over?"

"Some guys would rather talk than fight," he said contemptuously. He turned and stalked back to his point of high ground.



ANDERSON

TO BE CONTINUED

★ ★ ★

Old soldiers never die.



48

RANKS of BRONZE

DAVID DRAKE

THE RISING SUN is a dagger point casting long shadows toward Vibulenus and his cohort from the native breastworks. The legion had formed ranks an hour before; the enemy is not yet stirring. A playful breeze with a bitter edge skitters out of the south, and the Tribune swings his shield to his right side against it.

"When do we advance, sir?" his First Centurion asks. Gnaeus Clodius Calvus, promoted to his present position after a boulder had pulped his predecessor during the assault on a granite fortress far away. Vibulenus only vaguely recalls his first days with the cohort, a boy of eighteen in titular command of four hundred and eighty men whose names he had despaired of learning. Well, he knows them now. Of course, there are only two hundred and ninety-odd left to remember.

Calvus' bearded, silent patience snaps Vibulenus back to the present. "When the cavalry comes up, they told me. Some kinglet or other is supposed to bring up a couple thousand men to close our flanks.

Otherwise, we're hanging. . . ."

The Tribune's voice trails off. He stares across the flat expanse of gravel toward the other camp, remembering another battle plain of long ago.

"Damn Parthians," Calvus mutters, his thought the same.

Vibulenus nods. "Damn Crassus, you mean. He put us *there*, and that put us *here*. The stupid bastard. But he got his, too."

The legionaries squat in their ranks, talking and chewing bits of bread or dried fruit. They display no bravado, very little concern. They have been here too often before. Sunlight turns their shield-facings green: not the crumbly fungus of verdigris but the shimmering sea-color of the harbor of Brundisium on a foggy morning.

Oh, Mother Vesta, Vibulenus breathes to himself. He is five foot two, about average for the legion. His hair is black where it curls under the rim of his helmet and he has no trace of a beard. Only his eyes make him appear more than a teenager; they would suit a tired man of fifty.

A trumpet from the command group in the rear sings three quick bars. "Fall in!" the Tribune orders, but his centurions are already barking their own commands. These too are lost in the clash of hobnails on gravel. The Tenth Cohort could form ranks in its sleep.

Halfway down the front, a legionary's cloak hooks on a notch in his

shield rim. He tugs at it, curses in Oscan as Calvus snarls down the line at him. Vibulenus makes a mental note to check with the centurion after the battle. That fellow should have been issued a replacement shield before disembarking. He glances at his own. How many shields has he carried? Not that it matters. Armor is replaceable. He is wearing his fourth cuirass, now, though none of them have fit like the one his father had bought him the day Crassus granted him a tribune's slot. Vestal. . . .

A galloper from the command group skids his beast to a halt with a needlessly brutal jerk on its reins. Vibulenus recognizes him—Pompilius Falco. A little swine when he joined the legion, an accomplished swine now. Not bad with animals, though. "We'll be advancing without the cavalry," he shouts, leaning over in his saddle. "Get your line dressed."

"Osiris' bloody dick we will!" the Tribune snaps. "Where's our support?"

"Have to support yourself, I guess," shrugs Falco. He wheels his mount. Vibulenus steps forward and catches the reins.

"Falco," he says with no attempt to lower his voice, "you tell our deified Commander to get somebody on our left flank if he expects the Tenth to advance. There's too many natives—they'll hit us from three sides at once."

"You afraid to die?" the galloper

sneers. He tugs at the reins.

Vibulenus holds them. A gust of wind whips at his cloak. "Afraid to get my skull split?" he asks. "I don't know. Are you, Falco?" Falco glances at where the Tribune's right hand rests. He says nothing. "Tell him we'll fight for him," Vibulenus goes on. "We won't let him throw us away. We've gone that route once." He looses the reins and watches the galloper scatter gravel on his way back.

The replacement gear is solid enough, shields that do not split when dropped and helmets forged without thin spots. But there is no craftsmanship in them. They are heavy, lifeless. Vibulenus still carries a bone-hilted sword from Toledo that required frequent sharpening but was tempered and balanced—poised to slash a life out, as it has a hundred times already. His hand continues to caress the palm-smoothed bone, and it calms him somewhat.

"Thanks, sir."

The thin-featured tribune glances back at his men. Several of the nearer ranks give him a spontaneous salute. Calvus is the one who spoke. He is blank-faced now, a statue of mahogany and strap-bronze. His stocky form radiates pride in his leader. Leader—no one in the group around the standards can lead a line soldier, though they may give commands that will be obeyed. Vibulenus grins and slaps

Calvus' burly shoulder. "Maybe this is the last one and we'll be going home," he says.

MOVEMENT THROWS A HAZE over the enemy camp. At this distance it is impossible to distinguish forms, but metal flashes in the viridian sunlight. The shadow of bodies spreads slowly to right and left of the breastworks as the natives order themselves. There are thousands of them, many thousands.

"Hey-yip!" Twenty riders of the general's bodyguard pass behind the cohort at an earthshaking trot. They rein up on the left flank, shrouding the exposed depth of the infantry. Pennons hang from the lances socketed behind their right thighs, gay yellows and greens to keep the lance heads from being driven too deep to be jerked out. The riders' faces are sullen under their mesh face guards. Vibulenus knows how angry they must be at being shifted under pressure—under his pressure—and he grins again. The bodyguards are insulted at being required to fight instead of remaining nobly aloof from the battle. The experience may do them some good.

At least it may get a few of the snotty bastards killed.

"Not exactly a regiment of cavalry," Calvus grumbles.

"He gave us half of what was available," Vibulenus replies with a shrug. "They'll do to keep the natives off our back. Likely nobody'll

come near, they look so mean."

The centurion taps his thigh with his knobby swagger stick. "Mean? We'll give'em mean."

All the horns in the command group sound together, a cacophonous bray. The jokes and scufflings freeze, and only the south wind whispers. Vibulenus takes a last look down his ranks—each of them fifty men abreast and no more sway to it than a tight-stretched cord would leave. Five feet from shield boss to shield boss, room to swing a sword. Five feet from nose guard to the nose guards of the next rank, men ready to step forward individually to replace the fallen or by ranks to lock shields with the front line in an impenetrable wall of bronze. The legion is a restive dragon, and its teeth glitter in its spears; one vertical behind each legionary's shield, one slanted from each right hand to stab or throw.

The horns blare again, the eagle standard slants forward, and Vibulenus' throat joins three thousand others in a death-rich bellow as the legion steps off on its left foot. The centurions are counting cadence and the ranks blast it back to them in the crash-jingle of boots and gear.

Striding quickly between the legionaries, Vibulenus checks the dress of his cohort. He should have a horse, but there are no horses in the legion now. The command group rides rough equivalents which are . . . very rough. Vibulenus is not sure he could accept one if his par-

simonious employers offered it.

His men are a smooth bronze chain that advances in lock step. Very nice. The nine cohorts to the right are in equally good order, but Hercules! there are so few of them compared to the horde swarming from the native camp. Somebody has gotten overconfident. The enemy raises its own cheer, scattered and thin at first. But it goes on and on, building, ordering itself to a blood-pulse rhythm that moans across the intervening distance, the gap the legion is closing at two steps a second. Hercules! there is a crush of them.

The natives are close enough to be individuals now: lanky, long-armed in relation to a height that averages greater than that of the legionaries. Ill-equipped, though. Their heads are covered either by leather helmets or beehives of their own hair. Their shields appear to be hide and wicker affairs. What could live on this gravel waste and provide that much leather? But of course Vibulenus has been told none of the background, not even the immediate geography. There is some place around that raises swarms of warriors, that much is certain.

And they have iron. The black glitter of their spearheads tightens the Tribune's wounded chest as he remembers.

"Smile, boys," one of the centurions calls cheerfully, "here's company." With his words a jave-

lin hums down at a steep angle to spark on the ground. From a spear-thrower, must have been. The distance is too long for any arm Vibulenus has seen, and he has seen his share.

"Ware!" he calls as another score of missiles arc from the native ranks. Legionaries judge them, raise their shields or ignore the plunging weapons as they choose. One strikes in front of Vibulenus and shatters into a dozen iron splinters and a knobby shaft that looks like rattan. One or two of the men have spears clinging to their shield faces. Their clatter syncopates the thud of boot heels. No one is down.

Vibulenus runs two paces ahead of his cohort, his sword raised at an angle. It makes him an obvious target: a dozen javelins spit toward him. The skin over his ribs crawls, the lumpy breadth of scar tissue scratching like a rope over the bones. But he can be seen by every man in his cohort, and somebody has to give the signal. . . .

"Now!" he shouts vainly in the mingling cries. His arm and sword cut down abruptly. Three hundred throats give a collective grunt as the cohort heaves its own massive spears with the full weight of its rush behind them. Another light javelin glances from the shoulder of Vibulenus' cuirass, staggering him. Calvus' broad right palm catches the Tribune, holds him upright for the instant he needs to get his balance.

The front of the native line explodes as the Roman spears crash into it.

Fifty feet ahead there are orange warriors shrieking as they stumble over the bodies of comrades whose armor has shredded under the impact of the heavy spears. "At'em!" a front-rank file-closer cries, ignoring his remaining spear as he drags out his short sword. The trumpets are calling something but it no longer matters what: tactics go hang, the Tenth is cutting its way into another native army.

In a brief spate of fury, Vibulenus holds his forward position between a pair of legionaries. A native, orange-skinned with bright carmine eyes, tries to drag himself out of the Tribune's path. A Roman spear has gouged through his shield and arm, locking all three together. Vibulenus' sword takes the warrior alongside the jaw. The blood is paler than a man's.

The backward shock of meeting has bunched the natives. The press of undisciplined reserves from behind adds to their confusion. Vibulenus jumps a still-writhing body and throws himself into the wall of shields and terrified orange faces. An iron-headed spear thrusts at him, misses as another warrior jostles the wielder. Vibulenus slashes downward at his assailant. The warrior throws his shield up to catch the sword, then collapses when a second-rank legionary darts his spear through the orange abdomen.

Breathing hard with his sword still dripping in his hand, Vibulenus lets the pressing ranks flow around him. Slaughter is not a tribune's work, but increasingly Vibulenus finds that he needs the swift violence of the battle line to release the fury building within him. The cohort is advancing with the jerky sureness of an ox-drawn plow in dry soil.

A windrow of native bodies lies among the line of first contact, now well within the Roman formation. Vibulenus wipes his blade on a fallen warrior, leaving two sluggish runnels filling on the flesh. He sheathes the sword. Three bodies are sprawled together to form a hillock. Without hesitation the Tribune steps onto it to survey the battle.

The legion is a broad awl punching through a belt of orange leather. The cavalry on the left stand free in a scatter of bodies, neither threatened by the natives nor making any active attempt to drive them back. One of the mounts, a hairless brute combining the shape of a wolfhound with the bulk of an ox, is feeding on a corpse his rider has lanced. Vibulenus was correct in expecting the natives to give them a wide berth; thousands of flanking warriors tremble in indecision rather than sweep forward to surround the legion. It would take more discipline than this orange rabble has shown to attack the toad-like riders on their terrible beasts.

BEHIND THE LINES, a hundred paces distant from the legionaries whose armor stands in hammering contrast to the naked autochthones, is the Commander and his remaining score of guards. He alone of the three thousand who have landed from the starship knows why the battle is being fought, but he seems to stand above it. And if the silly bastard still has half his bodyguard with him—Mars and all the gods, what must be happening on the right flank?

The inhuman shout of triumph that rises half a mile away gives Vibulenus an immediate answer.

"Prepare to disengage!" he orders the nearest centurion. The swarthy non-com, son of a North African colonist, speaks briefly into the ears of two legionaries before sending them to the ranks forward and back of his. The legion is tight for men, always has been. Tribunes have no runners, but the cohort makes do.

Trumpets blat in terror. The native warriors boil whooping around the Roman right flank. Legionaries in the rear are facing about with ragged suddenness, obeying instinct rather than the orders bawled by their startled officers. The command group suddenly realizes the situation. Three of the bodyguard charge toward the oncoming orange mob. The rest of the guards and staff scatter into the infantry.

The iron-bronze clatter has ceased on the left flank. When the cohort

halts its advance, the natives gain enough room to break and flee for their encampment. Even the warriors who have not engaged are cowed by the panic of those who have; by the panic, and the sprawls of bodies left behind them.

"About face!" Vibulenus calls through the indecisive hush, "and pivot on your left flank. There's some more barbs want to fight the Tenth!"

The murderous cheer from his legionaries overlies the noise of the cohort executing his order.

As it swings Vibulenus runs across the new front of his troops, what had been the rear rank. The cavalry, squat-bodied and grim in their full armor, shows sense enough to guide their mounts toward the flank of the Ninth Cohort as Vibulenus rotates his men away from it. Only a random javelin from the native lines appears to hinder them. Their comrades who remained with the Commander have been less fortunate.

A storm of javelins has disintegrated the half-hearted charge. Two of the mounts have gone down despite their heavy armor. Behind them, the Commander lies flat on the hard soil while his beast screams horribly above him. The shaft of a stray missile projects from its withers. Stabbing up from below, the orange warriors fell the remaining lancer and gut his companions as they try to rise. Half a dozen of the bodyguards canter

nervously back from their safe bolthole among the infantry to try to rescue their employer. The wounded mount leaps at one of the lancers. The two beasts tangle with the guard between them. A clawed hind leg flicks his head. Helmet and head rip skyward in a spout of green ichor.

"Charge!" Vibulenus roars. The legionaries who can not hear him follow his running form. The knot of cavalry and natives is a quarter mile away. The cohorts of the right flank are too heavily engaged to do more than defend themselves against the new thrust. Half the legion has become a bronze worm, bristling front and back with spear-points against the surging orange flood. Without immediate support, the whole right flank will be squeezed until it collapses into a tangle of blood and scrap metal. The Tenth Cohort is their support, all the support there is.

"Rome!" the fresh veterans leading the charge shout as their shields rise against the new flight of javelins. There are gaps in the back ranks, those just disengaged. Behind the charge, men hold palms clamped over torn calves or lie crumpled around a shaft of alien wood. There will be time enough for them if the recovery teams land—which they will not do in event of a total disaster on the ground.

The warriors snap and howl at the sudden threat. Their own suc-

cess has fragmented them. What had been a flail slashing into massed bronze kernels is now a thousand leaderless handfuls in sparkling contact with the Roman line. Only the leaders bunched around the command group have held their unity.

One mount is still on its feet and snarling. Four massively-equipped guards try to ring the Commander with their maces. The Commander, his suit a splash of blue against the gravel, tries to rise. There is a flurry of mace strokes and quickly-riposting spears, ending in a clash of falling armor and an agile orange body with a knife leaping the crumpled guard. Vibulenus' sword, flung overarm, takes the native in the throat. The inertia of its spin cracks the hilt against the warrior's forehead.

The Tenth Cohort is on the startled natives. A moment before the warriors were bounding forward in the flush of victory. Now they face the cohort's meat-axe suddenness—and turn. At swordpoint and shield edge, as inexorable as the rising sun, the Tenth grinds the native retreat into panic while the cohorts of the right flank open order and advance. The ground behind them is slimy with blood.

Vibulenus rests on one knee, panting. He has retrieved his sword. Its stickiness bonds it to his hand. Already the air keens with landing motors. In minutes the recovery teams will be at work on the fallen

legionaries, building life back into all but the brain-hacked or spine-severed. Vibulenus rubs his own scarred ribs in aching memory.

A hand falls on the Tribune's shoulder. It is gloved in a skin-tight blue material; not armor, at least not armor against weapons. The Commander's voice comes from the small plate beneath his clear, round helmet. Speaking in Latin, his accents precisely flawed, he says, "You are splendid, you warriors."

Vibulenus sneers though he does not correct the alien. Warriors are capering heroes, good only for dying when they meet trained troops; when they meet the Tenth Cohort.

"I thought the Federation Council had gone mad," the flat voice continues, "when it ruled that we must not land weapons beyond the native level in exploiting inhabited worlds. All very well to talk of the dangers of introducing barbarians to modern weaponry, but how else could my business crush local armies and not be bled white by transportation costs?"

The Commander shakes his head in wonder at the carnage about him. Vibulenus silently wipes his blade. In front of him, Falco gapes toward the green sun. A javelin points from his right eyesocket. "When we purchased you from your Parthian captors it was only an experiment. Some of us even doubted it was worth the cost of the longevity treatments. In a way you are more effective than a Guard Regiment

with lasers; outnumbered, you beat them with their own weapons. They can't even claim 'magic' as a salve to their pride. And at a score of other job sites you have done as well. And so cheaply!"

"Since we have been satisfactory," the Tribune says, trying to keep the hope out of his face, "will we be returned home now?"

"Oh, goodness, no," the alien laughs, "you're far too valuable for that. But I have a surprise for you, one just as pleasant I'm sure—females."

"You found us real women?" Vibulenus whispers.

"You really won't be able to tell the difference," the Commander says with paternal confidence.

A MILLION SUNS AWAY on a farm in the Sabine hills, a poet takes the stylus from the fingers of a nude slave girl and writes, very quickly, *And Crassus's wretched soldier takes a barbarian wife from his captors and grows old waging war for them.*

The poet looks at the line with a pleased expression. "It needs polish, of course," he mutters. Then, more directly to the slave, he says, "You know, Leuconoe, there's more than inspiration to poetry, a thousand times more; but this came to me out of the air."

Horace gestures with his stylus toward the glittering night sky. The girl smiles back at him. ★

High Yield Bondage

*Contrary to popular misgivings,
there is indeed intelligent life
on Earth—but is it human?!*

HAYFORD PEIRCE



THE SPACEMASTER-Scout Mark IV of the University of Calcidone's Museum of Comparative Anthropology came in through the upper atmosphere like a hundred-thousand mile-an-hour blowtorch, appearing in the night sky over Atka in the Aleutian Islands as a hardly visible meteorite streaking toward the southwest. By the time it passed over San Francisco 2 minutes and 6 seconds later at 03:21 Pacific Daylight Time, it was an incandescent orange fireball that burned a path across the tortured atmosphere which only faded 40 minutes later, lighting the streets with an eerie Armageddon-morning glow that no one who saw it would ever forget.

Alarms jangled in NORAD headquarters under Cheyenne Mountain as the fireball ripped down the San Joaquin Valley, boomed past Phoenix and Las Cruces, and rattled the windows of El Paso before disappearing into the wastelands of West Texas. Initial print-outs projected an impact zone somewhere between San Antonio and Houston, and Condition Red warnings flashed across the United States. The few remaining seconds to impact ticked by with dreadful inexorability.

And nothing happened.

Somewhere over the desolate hill-country in the triangle formed by Grandfalls, Fort Stockton, and Girvin, Texas, at an altitude of what was later calculated to be 56,000 feet, the fireball vanished from the sky and the blip from the

radar screens as suddenly as if they had never been. The trailing sonic boom battered itself to death against the hills and King Mountain, and the remaining ionization of the shattered atmosphere merged a short time later into the morning sunrise. The Great Fireball of '72 has passed into history.

"Some ride," said Huntleader Riderson sourly, wiping the sweat from his forehead.

"I am sorry," replied the SpaceMaster-Scout, "but circumstances were temporarily barely within my control."

"So I noticed."

"An easier entry would have meant a better than 91.7% chance of impacting at approximately 98,794.6 miles per hour, in which case the stasis-field would probably have protected us from any further physical damage. But why," it asked reasonably, "put it to the test? And how the inhabitants of this world would have reacted to having the equivalent of a fusion explosion touched off between two of their major cities, I leave to your conjecture."

Riderson rose from his padded contour chair, a tall, dark-haired, heavily-muscled man of indeterminate age. He scowled. "Inhabitants? You're certain?"

"Of course, Hunt." The ship's voice projected directly into his mind. "In the few minutes directly after we came out of space-drive I had little enough real-time to spend

on inconsequentials, but there was sufficient to take note of orbiting satellites, diverse forms of communication phenomena, and primitive efforts at tracking our passage by radar. Indeed, our passage through the heavens will certainly have been observed visually, and I suggest that the most urgent steps toward concealing our position be taken immediately."

"Where are we anyway?" asked Riderson, as he activated the 360-degree viewsets. "Are you sure this is even the right world? It looks more like the middle of nowhere to me. Dusty-looking hills, scattered boulders, scraggly vegetation, no pop-eyed locals selling tickets to see the spaceship."

The ship appeared to sigh. "This is indeed the correct world. But as you have so cunningly noted, we have fortunately landed in uninhabited terrain. I managed to regain effective control at 56,000 feet, and instantly halted our passage, activating all counter-observation measures, and thereafter dropping like a stone. We should, Hunt, at that moment have completely vanished from all visual and electronic surveillance, but I stress my use of the word 'should'. Unless the inhabitants of this world have developed an inertialess drive, they will have probably calculated our impact point as 371 miles to the east, but we are not yet certain what senses they may have developed, either naturally or artificially. I urge—"

"Okay, okay. Time to crawl into a hole and pull the top over."

RIDERSON BROKE OUT a grav-sled and scouted the surrounding countryside while the SpaceMaster-Scout dug a hole for itself by the simple process of molecular transfer, which in practice consisted of removing the dirt and stones from beneath its 80-foot ovoid length and replacing them overhead until it had sunk gradually into a hole 60 feet deep.

"It's slower," said the ship, "but safer. No heat emission or messy clouds of dust for busybodies to come across. 40 feet of dirt over us ought to be sufficient."

"For Zog's immaculate soul," snapped Riderson three miles away, "I've never known such a chatter-box pile of machinery. The sun's almost up and that heap of dirt you've displaced sticks out like Xanthu's Wart. Aren't you through yet?" He wheeled the sled around.

As he spoke, the 20-foot pile began slowly melting away to merge with the adjoining landscape. He nodded approvingly, then got to work with the grav-sled to shape what little remained into an irregular jumble of sand and boulders.

Thoughtfully he fingered his chin. "Lacks that last little touch of the artist," he muttered at last. Deftly manipulating the sled's tractor-beams, he uprooted and transplanted two solid-looking cottonwoods into the rocky mound. "There," he said, brushing his hands in

satisfaction, "home."

A medium-sized boulder floated into the air, revealing a narrow passage, held by repeller beams, slashing down through the earth to the ship's surface. Riderson let the ship tractor his sled in. As it flowed through the outer integument, he saw the boulder overhead ease down and cover the passage.

He stored the sled away and strolled to the salon. Flopping down on a sofa, he kicked off his boots, then punched for a meal. The duplicator processed one out of its memory banks and materialized it before him, along with a sapphire vase of incandescent core-fire flowers.

As he munched, the ship came to a decision and slapped him into a stasis field while going itself on emergency blackout. It became as inert and lifeless as an 80-foot hunk of buried granite, emitting only that slight radiation which characterizes your friendly neighborhood rock. Emergency equipment was on standby to camouflage the existence of the stasis field in the unlikely event this planet's inhabitants had developed radar capable of penetrating 40 feet of earth. They hadn't.

The psionic sensors Riderson had scattered about the hills reported directly to the ship's mind the movement of jackrabbits, lizards, and an occasional coyote, and the next day an overflight of three brown helicopters in a concentric search pattern. Later in the week, small four-wheeled vehicles climbed

laboriously into the hills and beings in brown uniforms, apparently from evolutionary stock similar to Huntleader Riderson's, got out to point instruments and take rock samples. The ship probed gently at the men and their instruments with a spectrum of gossamer-fine psionic sensors, already nearly certain that its safety was absolute. When it had finished its survey, it was convinced; full power was restored to the ship's functioning and a communications cable run up through the earth and connected to an array of undetectable broadband receivers. The SpaceMaster-Scout began to teach itself the world's languages.

Riderson sat on in his stasis field, a spoonful of dessert posed before his lips.

Two months passed.

An expedition of geologists set up camp two miles to the southwest and poked through the hills for evidence of a shattered meteorite. After ten days they went away and only the jackrabbits and lizards remained.

A month later, Riderson experienced a slight flickering sensation as he completed the motion of introducing spoon to mouth. He chomped thoughtfully, then turned to fix his gaze on the wall clock.

"Who's running this ship," he grated, "you or me?"

"Do you really want me to answer that?" inquired the SpaceMaster-Scout politely.

"Oh, no comment."

"I have determined the extent of the damage to the ship and have conceived a basic plan regarding its repairs. After a brief language lesson in the hypnotank and a smattering of cosmetic surgery, you may begin its implementation later this—"

"Surgery?" yelled Riderson.

"Surgery," replied the ship firmly. "Professor Camptargo will be extremely vexed: his lifelong determination to prove that the entire galaxy's sentient population is derived from the Great Migration of 31,000 years ago has already been proven suspect. As the first expedition into this arm since the Black Collapse and the Interregnum of 27,000 years ago, we have already learned that the beings of this world are not of our stock."

"Not human? They certainly appear—"

"From a distance only. And their internal organs, from what I have been able to gather from their television advertisements, are entirely different. There are superficial exterior differences as well, which must be disguised. Rather than the lovely, flower-shaped orifices you possess for instance, these beings enclose their ears within what it would be charitable to refer to as fleshy extrusions. There are other minor details: only one thumb per hand, a larger—"

"Now wait just a minute here," began Riderson.

"You'll hardly know the differ-

ence," soothed the ship. "Until we have access to a technical library—this world's technology has not yet developed to the point of personal electronic retrieval systems—we won't really understand their evolutionary development. It is certain, however, that they are not human beings. Humanoids, yes; human beings, no."

"Convergent evolution, yes; Professor Camptargo, no," muttered Riderson. "There go seven books and his reputation. As well as his credit with the accounting department which hired this ship. Perhaps a stronger word than vexed. I wonder if they'll change the name to the 'Museum of comparative Ethnology'," he mused.

"We have other worries," the ship replied primly. "Like implementation of our plan, for instance."

"By Zog's sweet breath, what is this plan?"

"Nothing you will be unable to handle, my dear Huntleader. At the least, it is the unsuspected subjugation of the geo-political unit in which we find ourselves. At the most, merely the conquest of the planet."

"Oh," said Riderson blankly. "Of course."

"The latter *may* prove unnecessary," the ship added.

SIX MONTHS LATER Riderson returned to the ship after an expedition to Washington, where he had

planted semi-autonomous, self-camouflaging, psionic spy-sensors in the headquarters of the National Security Agency.

The SpaceMaster-Scout was pleased. "Excellent. We are now tied into the largest computer and electronic information retrieval system in the world. Combined with our inputs to the Houston Space Center, we are now effectively linked to this world's technological development."

"Spare me the details," said Rider wearily. "Obviously you're the brains and I'm just the brawn. If *you* had to drive one of these rattle-trap contraptions so laughably called *auto-mobiles*—"

"Relax, Hunt, everything is proceeding according to plan."

"Well, I wish you'd let me in on it. Six weeks of driving around the country opening accounts in hundreds of banks just to end up with a lousy \$296,000. Jeez."

"I am glad to see that you are already beginning to think like a capitalist. But seriously, even \$296,000 is an important sum of money if you consider it as yeast."

"So now we're bakers," said Riderson peevishly. "And what about the dangers of rampant inflation and the debasement of the currency? 'What good's a molecular duplicator,' I asked, 'if we can't just print up our own money and diamonds and gold?' 'Inflation; 'we want to subvert their economy, not wreck it,' you answered. 'Nuts,

in fact, *peanuts*,' I reply."

"True, several hundreds of millions could be introduced without significant distortion although it would be extremely risky to do so with cash—but I was talking in terms of tens of *billions*."

"Oh." Riderson pondered. "Well, just what *are* we going to do with this money?"

"Such a question, Hunt. As good capitalists, we are going to make our money grow. Modestly at first, but inexorably. I think we shall shortly need a collection of passports; I would welcome your thoughts on their acquisition. And in the short term? We shall purchase a supermarket."

"A supermarket?" Riderson blinked and tugged at his still unaccustomed earlobe. "Sure. What could be more logical in the conquest of the world than a supermarket?"

A YEAR LATER he had to acknowledge the logic. Money was easy to come by with a molecular duplicator in the tool room. Introducing large quantities of it into circulation was another matter. Especially since this particular government's confiscatory tax collectors were suspicious of anyone possessing large amounts of cash. One means of introducing surplus cash into one's books was to own a Nevada gambling hall; another was to own a combination supermarket-discount house purchased at a Houston bankruptcy sale.

The owner and manager of the store—a Mr. J. Major Clarkman—shook his head dolefully. Running an acre of store was hard work. Whoever said that work was uplifting? The only uplifting thing about it was at the end of the day when he duplicated the take—omitting checks, anything up to \$20,000—five times and then deposited the receipts in six different banks.

From there to three banks in the Bahamas was a little trickier but feasible, and from the Bahamas to Switzerland no problem at all.

The real problem was the betwixt-and-between state of this world's technology. High enough to have invented double-entry book-keeping, the creditcard economy, the IRS Gestapo; low enough to be incapable of producing a simple main-drive and gravitationless chamber for an old-fashioned SpaceMaster-Scout Mark IV. Without some well-directed inspiration it would be three or four hundred years before this planet's technology could effect the necessary repairs.

J. Major Clarkman sighed and continued to feed \$20 bills into the duplicator. Even with his longevity treatments, he'd still go home, if ever, with a long white beard and a fine set of the shakes. Unless, of course, he preferred to wait for rescue within the statis field for 17,000 years while a speed-of-light transmission was beamed back to the Museum by the nearly powerless ship. Assuming the Museum

still existed 17,000 years from now. . . . No, for the moment he would string along with the ship, playing boy-capitalist.

A thought occurred to him. J. Major Clarkman grinned. What would the IRS and the bankruptcy courts think when eventually they got around to investigating his store's six bank accounts? That he was a Mafia chieftain? A Presidential fund raiser?

He continued to grin.

In June of '75 Riderson was summoned back to the ship. He found two men sprawled at their ease in the salon. Before he could disentangle his eyebrows from his hairline the ship spoke.

"Your brothers, Hunt, those extra hands I promised you some time ago."

"My broth— Oh. Clones. You've been growing them in the vat."

"Exactly."

"Well. . . ." he drew a long breath, scrutinized them closely. One was shorter than himself and darker, the other taller and thinner. By their facial traits they might have been his cousins. They returned his scrutiny with sardonic smiles. "They're not very handsome, but since you say they're me, I guess that makes them fit for un-mixed company."

"A little genetic engineering," said the tall one, "for identification only. It would be inconvenient in our dealings with this world, for us

to *seem* as identical as we are." He yawned, punched for a drink.

"Before we go any further," said the short one, "I suggest we baptize ourselves. Even among ourselves three Huntleader Ridersons are apt to prove confusing."

"I agree," concurred the ship. "In any event, Hunt One's current role as J. Major Clarkman is about to end. Hunts Two and Three have been filled in with your personality and memories as of two months ago, the last time I recorded them. In a moment we'll fill them in with events through today and then begin work on our new roles. You, Hunt One, will shortly become a certain Richard Erikson. Hunt Two is already John W. Franklin of Melbourne, Australia, and Hunt Three is Russell C. vanPestel of Amsterdam. All three of you have 'real' identities, in the sense that people of these names were born to real Americans living overseas, who no longer have surviving parents or relatives, and who all disappeared finally and irrevocably from the face of the earth many years ago—as a surprisingly large number of the natives of this planet do each year.

"Complete backgrounds and documentation covering the years since your namesakes vanished exist for all of you; you will all be able to withstand very careful examinations indeed. vanPestel and Franklin have been somewhat re-oriented for technological aptitudes and will concentrate primarily on

the engineering aspect, while Erikson's main role will continue to be financial, although there will, of course, be a great deal of overlapping activity. Any questions?"

There were many, but none that couldn't wait until after dinner. In his scouting career among the stars, Riderson had already met death on three separate planets. Each time he'd been reanimated as an artificially grown clone, complete with personality and memories. Only the fact that there were now three Ridersons rather than one lifted the situation above the prosaic. In ordinary situations it was illegal to duplicate a living, functional person. He punched for a drink and began to discuss the menu with his two selves.

IN HIS PERSONA as J. Major Clarkman, Riderson One returned to Houston, where he set about the liquidation of his affairs. The store was free of debt and doing business in excess of \$300,000 per month. Riderson began looking for a purchaser. Eventually he received a certified check for \$1,525,000 which he regretfully disbursed without duplication throughout his banking system and thence to Switzerland.

The accounts in the Houston banks were closed out, then the ones around the country and the three in the Bahamas, as all of Clarkman's assets made their way to the anonymity of Geneva. From Geneva \$4,142,849.63 was transfer-

red to Beirut, where it was used to purchase a varied portfolio of mining interests around the world from an expatriate American speculator, one Richard Erikson.

J. Major Clarkman, perhaps fortunately, was never destined to learn how unsound his business judgement was. On September 4th he rented a light plane, as had been his custom for a number of months, to pilot himself for a joyride over the Gulf of Mexico. It was an overcast day but three shrimp trawlers clearly saw the craft disappear into the scudding clouds. Less than a minute later the plane reappeared, apparently in an uncontrollable dive. It smacked into the Gulf waters and came apart in a thousand pieces. The trawlers searched for six hours and although bits of the plane were recovered, the body of J. Major Clarkman was never found. The few personal effects in his apartment were eventually disposed of by the State of Texas. His portfolio of worthless mining stocks was discovered in a Lebanese deposit box 22 years later.

RICHARD ERIKSON ARRIVED in New York in October, 1975, bearing with him letters of credit which he deposited at Chase Manhattan and First National City, \$2,000,000 in each. He confided jovially that after a life in the wilds amassing his grubstake as a mining speculator, he was now ready to start making some real money. The bankers

smiled indulgently, as did the 14 brokers with whom he opened accounts. Mr. Barnum's famous adage was still unimpeachable a hundred years later.

Initially, however, Mr. Erikson proved to be something of a surprise. He invested modest amounts in AT&T, IBM, GE, Xerox, and 3M and seemed content to trade them back and forth, occasionally selling one short for no better reason than variety's sake. By February, 1976, he was ahead of the game by perhaps \$50,000, which amidst the pitfalls of the Street could be considered something of a triumph, but as it was all short-term taxable income rather than long-term capital gains, a rather slight one. He had, nevertheless, become well established as one of those rootless men of wealth whose sole occupation appears to be wandering from one brokerage firm's ticker-tape to the next.

But now his natural exuberance began to re-exert itself.

He liquidated his holdings of blue-chip securities and possibly because of his background in mining speculation became a mark for a couple of high-class international conmen specializing in the extraction of wealth from the bowels of the earth.

From Australia came a sharpie who demonstrated a process whereby he could extract the salt from sea water for no more than the cost of pouring the water over a

membrane. With a little money for additional research the extraction of gold and uranium would be forthcoming within months. Erikson wrote out a check for \$200,000 to purchase a 50% partnership and to finance the acquisition of a research facility on the Oregon coast.

From Amsterdam came another sharp, one who had invented an automated process for cutting crude diamonds into polished gems at a fraction of the present cost. He was a plausible scoundrel, for he presented as evidence of his bona fides bags of glittering stones from a Swiss deposit box, exact replicas, he claimed, of the lost treasures of Czar Nicholas. From the same box came other bags of raw diamonds, worth only a fraction of what their value would be as finished jewels. So consummate and audacious an artist was vanPestel that he even displayed a U.S. customs appraisal and receipt for duty paid. His eyes glittering with the dazzle of unimaginable wealth, Erikson wrote out another check, this one for \$500,000 and a partnership in The King of Diamonds, a store to be opened on Fifth Avenue. For his part, Mr. vanPestel would contribute as capital his stock of gems and raw diamonds as well as his yet-unseen automated gem-cutter. . . .

Having in his mind's eye cornered the world's market in gold and diamonds, Mr. Erikson set forth to do the same with oil. He opined,

apparently without outside assistance this time, that the next great oil strike would be made in the triangle formed by Grandfalls, Fort Stockton, and Girvin, Texas, an area that had been picked over and discarded by petroleum geologists a dozen times in the past.

He caused to be purchased oil, gas, and mineral rights on 50 square miles of this worthless terrain by means of 99-year leases at an annual rate of \$1 per acre, or \$32,000 a year, and 1/16th royalties on all revenues. The ranchers took his checks with straight faces, too well-mannered to snicker openly. Two weeks later, at astronomical cost, the first drilling rigs arrived. The first seven holes were dry, but Erikson insisted that they continue. He repurchased his 1/16th royalties for \$40,000 cash under the table. A million dollars disappeared in easy fashion.

Had Mr. Erikson any friends, at this point they would surely have led him away. . . .

Simultaneous to these follies, he embarked on another, one that at least possessed the virtue of being marginally comprehensible to his acquaintances on the Street.

In 1969 a small firm that made electronic components and precision optical instruments experienced a year of unusual prosperity. Their per-share earnings jumped from a traditional \$0.25 to a breathtaking \$1.85. They immediately split their stock, issued a public offering of

one million shares at \$25 per share, and obtained a listing on the New York Stock Exchange.

Unexpected prosperity and over-expansion into unrelated products were their undoing: there had followed six years of ever-increasing deficits. The company's stock, which had once reached the dizzy height of 62, had four times been suspended from trading and was now selling at a modest 1½ with no takers. The only interest the Street retained in Virginia Videolec Inc. was a mild wonderment which would happen first, being struck off the Big Board or going into receivership.

For reasons best known to himself, Richard Erikson began to take a position in VVI. There were 2,250,000 shares outstanding; at 1½ a share, a measely \$3,375,000 would purchase the company lock, stock, and deficit. He began to place orders with his brokers, who now totaled twenty-seven, purchasing small amounts in the brokers' names. VVI's prospects were so bleak that no broker would allow him to purchase on margin, necessitating 100% payment. No bank would accept the stock as collateral for loans to buy additional stock. Erikson's initial grubstake of \$4,000,000 continued to melt away.

The word spread quickly that a live one was loose in the Street. VVI doubled, to 3. Erikson continued to buy. It went to 5. He frowned, but phoned in his orders.

It jumped to 7¼. He backed off and the price fell to 4-7/8 but continued to hover there.

He scowled. Neither Franklin or vanPestel had their operations in full enough swing yet to permit the payment of dividends. He consulted with the ship, and \$20,000,000 in Triple-A bonds, the bluest of the blue, GM, Exxon, AT&T, were carefully forged and surfaced from a deposit box in Geneva. He peddled them around to various banks, who were pleased to accept them as collateral for loans of 80% of their market value, the which were to be employed for business transactions only; the purchase of stocks with the said sums being a federal offense punishable by who-knew-what.

With 16 million at his disposal, he returned to the market. VVI shot to 12-1/8. Brokers now allowed him margin, only 30%, but it was better than nothing. To purchase a share at 20, Erikson put up \$14.00, the other \$6.00 being advanced by the broker, who was loaning the money to Erikson and retaining the purchased share as collateral on his loan. If the price of the stock began to tumble, the broker would require immediate payment of the \$6.00; if it was not forthcoming, the stock would be sold, hopefully before its value fell below 6.

He persevered.

On the West Coast John W. Franklin held a press conference, flying in at the company's expense

a horde of skeptical science-writers and speculators, along with a retired conman and two internationally-known prestidigitators. He treated the assembled audience to a simple demonstration.

A 10-inch pipe was run into the surf. Sea water was pumped through it and out the other end, undeniably salty sea water. He attached the pipe to an apparatus suspended by cables from a construction derrick. An ordinary lamp cord ran to a portable 1.5KV generator. He pushed a button. Sea water was pumped from the ocean. Salt poured forth from one side of the apparatus, a 10-inch stream of pure drinking water from another.

The audience was invited to find the trick. Tools were distributed for the purpose. Inside the gadget they found a membrane and a small motor to operate a sort of wind-shield wiper to remove accumulating salt from the membrane. No hidden fresh-water lines ran down from the derrick or up invisibly from the ground.

The next morning observers from Algeria, Saudi Arabia, and Israel appeared on the scene. They returned the following day with certified checks, the smallest of which was for \$17,000,000. As a gesture of good will Franklin had arranged for a fleet of helicopters to transport the crated units to Portland International.

Initial profit-taking of \$6,000,000 was telexed to Erikson in New

York, who used it to purchase the remaining 135,000 shares of VVI at an average price of 41-3/8. It had cost him over 24 million to purchase a company a hair's breadth from bankruptcy, and he owed 16 million plus interest to bankers and 2 million plus interest to brokers. Any day now one of the bankers might think to check the serial number of his AT&T bond against the company's list of bondholders.

Erikson sighed. If only he'd owned a company in the first place; the company could have made a stock offer to the owners of VVI, a \$4 share of General Widget, say, for each \$1.50 share of Virginia Videolec, Inc. The whole thing could have been snapped up for \$11,000,000 of paper. Well, never no mind, he told himself, you now have your General Widget for your next acquisitions. It only remained to get the bankers and brokers off his back and to stave off the imminent collapse of VVI. . . .

The following day Oregon Oceanographics, a partnership, was transformed into a corporation with 10 million authorized shares, 9 million of which were subscribed to at a cost of \$0.25 per share by Richard Erikson (4,480,000 shares), John W. Franklin (4,480,000 shares) and a Dutchman named vanPestel (40,000 shares).

The Securities and Exchange Commission permits the formation of privately-owned corporations without filing for its approval if the

corporation has less than 22 stockholders. Oregon Oceanographics, Inc., offered for private sale 500,000 of the remaining one million shares at a price of \$50 per share, a brisk appreciation from the founders' \$0.25. Ten speculators surfaced, eager to invest \$2,500,000 each for the construction of new plant and equipment. The remaining 500,000 shares, now worth \$25,000,000 by this standard, were traded to the sole stockholder of Virginia Videolec for the 2,250,000 shares of that moribund company. VVI thus became a wholly owned subsidiary of OreOc.

The World Bank loaned the drought-stricken nations of Central Africa \$50,000,000 for the purchase of desalinization equipment and \$400,000,000 for the construction of pipelines from the ocean. Richard Erikson found five additional speculators now ready to pay \$100 a share for the 500,000 he had just received in exchange for VVI. He pocketed his 50 million, used 20 to pay off his brokers and bankers, and consigned his phony Triple-A bonds to the molecular disintegrator with a sigh of relief.

THE KING OF DIAMONDS, in the meantime, had opened its doors to trade amidst an unprecedented amount of free hoopla by the world's media, achieved by the simple tactic of giving away a million dollars' worth of diamonds, one \$100 diamond to the first 10,000

people to walk past the shop. The National Guard was called out and fire hoses employed. Curiously enough, the windows of The King of Diamonds remained unbroken throughout the riot. The National Association of Jewelers, the International Confederation of Diamond Merchants, and the Union of South Africa lodged vitriolic protests and began the first of hundreds of investigations and court actions.

Mr. venPestel was unruffled. "It's like the death throes of the buggywhip manufacturers at the introduction of the automobile," he told a reporter from the *Wall Street Journal*. "Automation has finally reached the jewelry trade. Take a raw diamond that's worth \$1,000. After being cut by a master craftsman, it's sold for \$5,000. How much of that intervening \$4,000 do you think the master craftsman sees? There's a bunch of them down on 34th Street. Poor old boys; I'll hire them all to set the stones—if the South Africans don't drop a bomb on me first."

"You think there's some danger of that?" asked the reporter.

"Certainly. I'm going to sell that raw \$1,000 diamond for not \$5000 but \$2,000, cut better than any man alive can do it. And I'll still make a fair profit. The diamond and precious stone market is about to go blooey and a lot of South Africa with it, good riddance to them. But first they'll try to deny me the raw stones, then they'll try to prove I'm

bringing them to the States illegally." He shrugged. "So let them try. I have my own sources of supply from all over the world. Are they smuggled out of South Africa? Do I know? Do I care? I just buy them from middlemen, and I pay customs duty on all of them. I say nuts to the South Africans."

The man from the *Wall Street Journal* found Mr. vanPestel a refreshing change from the usual run of moguls. "Assuming you survive assassination, of your character or otherwise, what are your plans?"

VanPestel shrugged. "It's early days yet, but I'm thinking of forming a little corporation, just a few stockholders, to open some branches in other cities. Then who knows, maybe go public, have my stock listed right up there on the Big Board with Texaco and all the others. . . ."

He winked disarmingly, gave the reporter a diamond, then returned alone to his impregnable stronghold at the rear of the store. He placed an uncut diamond into a softly humming machine. A beautifully-cut gem popped out. He smiled. He looked about, found a hefty one-pound tome issued by the South African Chamber of Commerce; *South Africa, An Industrial Profile*. He stuffed the book in. A pound of cut diamonds spewed forth. He laughed aloud.

The simple pleasures of the rich.

deserts of the world began to bloom. Mile by dusty mile the Sahara was reclaimed; Israeli and Arab established the stupendous Three-Ocean Water Authority; two million Chinese were invited to immigrate to the heart of the Great Australian Desert and within 18 months were feeding two-hundred million Indians.

The fortunes of OreOc and VVI bloomed concurrently. Except for handling the vast sums of money that poured in, the only difficulty was in concealing the fact that 480 workmen, researchers, and scientists were not in actuality manufacturing anything. This is difficult to dissemble in an enterprise in which annual sales are reaching three-quarters of a billion dollars by the end of the second year, but it is possible.

With the purchase of all of VVI's stock from Richard Erikson, OreOc became, in effect, a holding company, and upon the transfer of its so-called production facilities for the desalinization plants to VVI, its sole source of revenue became the dividends paid by its manufacturing subsidiary. To justify the initial stock sale of \$25,000,000, an enormous research plant was constructed in Oregon and most of the technical personnel and workmen from the Virginia factory summoned west. Here they were joined by 280 freshly hired researchers and scientists, all working under the direction of John W. Franklin in the

OVER THE NEXT TWO YEARS the

fields of molecular grouping and atomic theory. In a desultory fashion, bits and pieces of desalinization plants were manufactured in fits and starts and shipped east for final assembly.

In Virginia, 340 additional scientists and workmen were hired, most of whom were concerned with holographic research. Additional bits and pieces of desalinization plants were manufactured in fits and starts and shipped west for final assembly.

East and West met in St. Louis, Missouri, where bored workmen put together the bits and pieces and inserted the essential membranes, the latter being delivered in haphazard fashion from both Oregon and Virginia. The 15 speculators who had originally bought a 10% interest in OreOc were now so preoccupied banking their dividends that none of them ever insisted on seeing an actual membrane production line in full operation. Being a privately-held corporation, no disgruntled stockholders or admonitory SEC officials were in a position to demand an accounting, which was just as well, as the only membrane production line was the duplicator in the rear of Franklin's office.

It is marvellously facile to make money if there is no vulgar necessity of actually manufacturing the manufactured article.

About the time that Franklin was ready to announce to a breathless world that cheap mineral extraction

from sea water was now an economic possibility, one of the ship's spy sensors reported that Israeli scientists would be able to produce their own membrane within six months. For the nonce it was a carefully-guarded state secret, a hangover from the days of the internecine wars of the Mideast.

Franklin smiled. It was the moment to milk the membrane for the last drop.

The production facility in St. Louis was expanded and incorporated as Saltfree Industries, a subsidiary corporation, thenceforth to be the world's sole manufacturer and distributor of OreOc's desalinization plants. To the joy of Wall Street, the new company immediately went public. A 100 million shares were issued at 10, with 40 million shares subscribed to by the parent company, OreOc. The other 60 million were snapped up the day of the offering and immediately rose to 35.

OreOc thereby possessed nearly a billion and a half dollars worth of Saltfree Industries stock, which it promptly converted into cash by selling through Swiss brokers. The price fell to 31, but not before OreOc had cash reserves in excess of a billion and a half dollars. It hired an additional 600 scientists.

Israel announced its discovery and the stock fell to 4.

The Riderson brothers sold it short all the way down and pocketed another \$200,000,000.

The SEC announced a massive investigation.

OreOc hired 72 lawyers.

Franklin continued to smile.

The 14th dry well paid for itself and the 13 others when diamonds were discovered at a depth of 200 feet in the middle of the Texas badlands. The world's geologists snorted. If diamonds were ever mined in the United States outside of Arkansas, it would not be in Texas, and if it *were* in Texas, it would not conceivably be on Richard Erikson's 32,000 acres of badlands. One of the more outspoken geologists (speaking from the legal sanctuary of Johannesburg) declared the discovery an obvious job of salting and suggested that the world follow with close attention just how Richard Erikson proposed to milk his sucker's bait.

The geologist's worst fears were well-founded.

The King of Diamonds, Inc., a privately-held corporation, with branches now in 600 U.S. cities, and cash reserves in Zurich of over \$200,000,000, moved swiftly. Mining equipment arrived, an enormous plant began to spring from the Texas desert, armed guards patrolled the perimeter, 200 scientists were hired for vaguely-defined purposes, and Russell C. vanPestel himself arrived to take up permanent residence in a prefabricated house. After an inspection of a hastily-dug mine, he announced that henceforth all diamonds for his 600

stores would be produced solely in the Great State of Texas. The Governor and assorted dignitaries applauded.

It might even prove, continued Mr. vanPestel, that a revolutionary new form of automated mining was possible. One of his scientists had some ideas about suppressing the charge on the electron, which, if feasible, might not exactly *disintegrate* matter so much as shove it aside, but in any case. . . . His voice trailed away. He was not a technically-oriented person, he admitted modestly. Others would understand the consequences far better than he.

The Governor nodded knowingly.

Six months later the world was flooded with diamonds. The price tumbled by 85%. The rich and haughty abandoned diamonds for sapphires and rubies. The non-rich and non-haughty bought them by the millions.

750 more scientists arrived, and a town began to appear on Erikson's acres.

The first assassination teams filtered out of South Africa and the Congo, unlikely allies.

Russell C. vanPestel survived the attempts with disdainful ease.

To rub it in, he appeared on national television and smiled a dazzling smile. His 32 teeth had been replaced by 32 carefully-faceted, first-water, indestructable, matching diamonds. 200,000 dentists phoned their dental supply houses.

Brilgleem, a recently-floated, publically-owned corporation was the world's only supplier of dental-diamonds. Its stock was at 2, rose rapidly to 24. On the sale of their holdings a few weeks later, Ridersons I, II, and III banked a puny 150 million. It was tantamount to stealing pennies from a blind man, but in a few months every penny would be needed. They were approaching the moment of their first major financial operation.

John W. Franklin called another press conference, this one from the paneled majesty of his new board room, to report the development of economically-feasible extraction of magnesium, bromine, strontium, rubidium, copper, and other rare metals from the planet's inexhaustible oceans. He gestured toward a pile of dully-glittering sand, shoveled carelessly into a corner of the room.

"20 tons of gold, gentlemen, extracted from a single cubic mile of sea water. At the unofficial Treasury price of \$104 per ounce—in Geneva, I may add, on the free market it was \$213 this morning—that comes to \$104 multiplied by 640,000 ounces, or \$66,540,000. Wait!" he cried to the hastily stampeding crowd of newspaper men, "that's nothing compared to the other minerals. . . ."

But the journalists were already gone.

Gold opened in Geneva at \$184 and towards the end of the day had

plummeted to \$73. Erikson, Franklin, vanPestel, and their assorted corporate structures began to buy. In Geneva, in Zurich, in Basel, they purchased over two billion dollars worth of gold.

The following day the fine print in Franklin's press conference began to penetrate the world's consciousness. To extract 20 tons of gold it was necessary to first process 4 *billion* tons of ocean. Even with the controlled fusion plants that Franklin's scientists now had the highest hopes of developing, it would make better economic sense to extract gold from the dirt in your own backyard. . . .

The price of gold immediately rallied to \$196, at which point the Ridersons unloaded their holdings for 5 billion dollars.

. . . . copper and other metals, yes. A major industrial effort was needed. OreOc Inc. was proposing a 2 billion dollar bond issue to finance plant construction. The bond would yield 14% interest, with, and this was another revolutionary feature, an automatic escalation of its par value geared to the cost of living, so that if inflation eroded the purchasing power of a 20-year bond from \$1,000 to \$500, it would be redeemed in 20 years at \$2,000.

If the SEC wanted to carry on its ridiculous vendetta against OreOc Inc. and refuse the proposed bond issue, it might be pointed out that Brazil possessed an enormous coastline, a modern industrial base,

and a deep interest in the possibility of harnessing nuclear fusion and the mineral wealth of the inexhaustible seas for the benefit of all mankind. . . .

After a short, stormy interview with the President of the United States, the Chairman of the SEC bitterly tendered his resignation. OreOc's 2 billion dollar bond issue was approved one month later, and although Standard & Poors rated it a high-risk Single-B value, it was over-subscribed before the day of issue and eventually came out at a premium of 111.

The 2 billion was received by the treasurers of Worldwide Oceanographics, Inc., a wholly-owned subsidiary of OreOc, and handled just as the SEC had feared. It shuttled back and forth in a labyrinth of banks, holding companies, escrow agents, underwriters, insurance companies, Treasury Bills, and Commercial Paper until it submerged for good in the waters of Lake Geneva.

True, enormous plants were under construction, a fleet of ships was being laid down in the yards, 2000 scientists had been hired, but had anyone aside from the SpaceMaster-Scout's bookkeeper-in-training (its Primary Accountancy Cells were being held in reserve for more important duties) been able to disentangle this plate of spaghetti, it would have become apparent that all these operations were being carried out with additional borrowed

money or from the companies' daily cash flow.

The moment had come. Reserves of 9 billion dollars stood ready. It was time to put the grubstake to work.

IT IS EASY to make money on Wall Street when the price of a share rises. You buy IBM at 300, sell at 400, and pocket \$100.

It is just as easy to make money when the price of a share declines. You open a short account with your broker. You decide to sell AT&T short, betting that it will be selling for less next week than it is today.

You tell your broker to sell AT&T short by 100 shares. Today a share costs \$50. The broker finds another customer willing to buy 100 shares of AT&T for \$5,000, the going price. You sell the other customer your shares and you receive his money. With one important reservation. Your 100 shares will be delivered to the other customer one week from today, and at the same time your \$5,000 will be paid over.

You have sold shares of AT&T that you do not yet own.

One week later AT&T is selling for \$45. Your friendly broker arranges for the purchase of 100 shares for \$4,500. You deliver your 100 shares to the other customer, the broker pays you the agreed-upon \$5,000.

You have just made \$500.

If AT&T had fallen to 1, you would have made \$4,900.

IDENTICAL ORDERS from 2,731 faceless customers to 2,410 brokers scattered around the world: "Sell Kodak, Bell & Howell, and Polaroid short." The orders exceeded 3 billion dollars, but this was a drop in the bucket compared to the combined market value of the outstanding stock of the three enormous corporations.

Kodak was selling at 263, Bell & Howell at 91, Polaroid at 176.

The next morning Richard Erikson, Chairman of Virginia Videolec, Inc., a firm which had virtually disappeared from the public's consciousness, exploded his bomb before an auditorium full of interested parties.

He invited a grey-flanneled banker to mount to the podium. As the puzzled banker complied, Erikson appeared to be tracking his progress with a small plastic box held in the palm of his hand, in appearance rather like a photographer's light meter. By the time he reached the podium, Erickson was pointing it at his face from three feet away.

"That's enough, thank you." Erikson swung around, pointed the gadget toward the empty stage. "Kindly observe."

Ten feet away a section of the audience suddenly materialized a few feet above the stage. A miniature grey-flanneled executive rose from its midst and began to walk forward. As he grew in size the background audience diminished.

Eventually, there was nothing but a 7-foot, 3-dimensional image of his head hovering over the stage. There was pandemonium in the audience.

"Gentlemen, the entirely automatic holographic camera and projector," said Erikson with a smile. The noise increased.

He raised an admonitory palm. "But wait: when thou hast done, thou hast not done, for I have more."

He thumbed a control. The image reversed itself until the banker was in the act of descending the stairs. It stopped. Erikson placed a sheet of paper between the projector and the image, moved it back and forth until he had framed a picture satisfying to his aesthetics. He pushed another button, then handed the sheet of paper to the bemused banker. A high-resolution, full-color, 3-dimensional picture of himself mounting the podium had replaced the pristine blankness of the paper.

"It is unfortunate," deprecated Erikson when he could make himself heard, "that this is a mere prototype and that production will only begin some indeterminate time in the future. . . ."

Nevertheless, Kodak fell to 174, Bell & Howell to 45, and Polaroid to 83.

The Ridersons ordered their brokers to sell short a second time.

VVI announced that on reconsideration production would begin immediately after all.

Kodak fell to 87, Bell & Howell to 19, Polaroid to 36.

The Ridersons ordered their brokers to sell short a third time.

VVI announced that their cameras would be priced between \$7.95 and \$39.95. Studio and theatre models would be somewhat higher.

Kodak fell to 12, Bell & Howell to 3, Polaroid to 2.

The Ridersons began to buy, but their full resources of 17 billion dollars weren't needed. For a mere 3 billion they purchased 20% interests in each company, then for 5 billion more an additional 20%, at which point they demanded and received new boards of directors. The new directors announced that Polaroid and Bell & Howell had negotiated exclusive licenses with VVI for the production of its camera and Kodak for the production of its miracle film. The price of their common stock rose by over 1000% and the Ridersons sold half their interests for 50 billion dollars.

OreOc, the parent company of VVI, offered to trade 65% of its privately-held stock in exchange for the remaining 80% of publicly-held Kodak, Bell & Howell, and Polaroid stock. In a daze, stockholders the world over accepted the tender.

The Ridersons now owned plant and research facilities surpassing those of most of the world's nations. Their cash reserves climbed past the 80 billion dollar mark.

A scientist at OreOc's laboratories announced that research into extraction processes hinted at the possibility of the age-old dream of transmutation.

A scientist at The King of Diamonds Texas laboratories announced that investigations into the behavior of the electron's suppressed charge could conceivably lead directly to controlled fusion.

Much as the aging John D. Rockefeller the First hired a public relations man to soften his public image, the Ridersons' various holdings chipped in 10 billion dollars to found a center of higher learning, the World University of the Physical Sciences. Its School of Tachyon Behavior was endowed with an additional 3 billion.

The ship arranged a conference call between Erikson, Franklin, and vanPestel. "A start has been made," it reported, "particularly in the basic research needed to develop the necessary technologies. Tachyons, fusion, transmutation to achieve continual creation of the transuranic elements. What is primarily lacking is gravitational control to bind the transuranic elements and for the non-gravitational chamber which contains the drive unit. I can explain the theory, but it would be equivalent to explaining the theory of television to Leonardo. Imagine the industries and technologies Leonardo would have to invent for the simple pleasure of watching "Gone With the Wind"

on his portable TV. We need more money, more power, more industrial base."

A SCIENTIST-SPOKESMAN at the combined Kodak-Polaroid laboratories announced that they had succeeded in adding audio recording and playback to their cameras.

John Franklin announced it was possible to beam a holographic image from one end of the world to the other.

VVI put the two together and came out with a wristwatch-sized communicator which projected voice and image of the person calling to the person called and vice versa. No telephone wires were needed, or central switchboards, and dialing was replaced by an ordinary voice command to get, for instance, my pal Robert. Only if the caller knew two or more Roberts were there any difficulties. Electronically-augmented telepathy? VVI wasn't saying. Where was the power source? An unpatented trade secret.

They sold AT&T short all the way down from 74 to 3, then purchased outright the entire stock of the company with the highest assets of any corporation in the world, among which were the superb Bell Laboratories.

It was also the most widely-held stock in the world. Its crash touched off the Great Plunge of '82, and the spectre of the breadlines of the Great Depression became once

again a possible reality.

Holophones could also be used to replace television if the \$29 model were purchased rather than the standard \$8.

The Ridersons launched their own satellite network and bought up the remains of NBC, CBS, and ABC as well as RCA's laboratories.

No one in any of the companies purchased was thrown out of work. Some were given make-work jobs, others were re-assigned, others were essential. General Holophone, for instance, continued to bill its customers on a monthly basis, although only three people in the world knew that the SpaceMaster-Scout's Primary Accountancy Cells were both the central switchboard and head bookkeeper for 200 million psionically-boosted holophones.

The opprobrium of the FCC, the SEC, and the various state Public Utility Commissions was overcome when the holophone belonging to every federal, state, and municipal employee, from President down to city-hall janitor, simply failed to function for a three-day period.

Outside the United States the Telephone and telegraph services of the world are generally government monopolies run by the postal authorities. Opposition to the introduction of the American-controlled holophone was loud and adamant. 40 million holophones were distributed by direct mailing free of charge to the world's leaders. Their calls were not billed. Four months

later their holophones suddenly ceased to work.

A researcher at Bell Labs built a primitive duplicator, suitable at any rate for duplicating holophones. Two weeks without holophones and the world's leaders capitulated. 4 billion holophones went into production and the American balance of payment deficit was ended forever.

"The next step," said Erikson, "is going to be tricky. Whatever remnants of national sovereignty and boundaries survive the holophone are going to be wiped out by our next gizmo. The Iron Curtain countries particularly are going to cut up rough."

"With reason," said vanPestel. "I hereby predict the end of Communism within three years at most, and what I can predict, others can."

Franklin tugged at his earlobe. "I agree. We'd better take precautionary measures. We have full control of that Swiss armaments plant, don't we? I suggest we work it, through them."

PUZZLED MILITARY OBSERVERS from every country in the world were invited to witness a demonstration on an uninhabited speck of coral in the middle of the Pacific Ocean. A dour Swiss businessman in a black woolen suit sat uncomfortably on a wooden chair in the full blast of the equatorial sun. A small apparatus hummed to itself beside him. From a ship 6 miles

away the observers were invited to observe a small rowboat which bobbed in the waves half a mile from the Swiss. But only through a specially polarized screen. A 20-kiloton nuclear device suddenly exploded in the rowboat. When the benumbed observers returned to the islet they found the dour Swiss looking impatiently at his watch, suffering from sunburn on his legs where he'd incautiously rolled up his trousers to expose his white shanks to the broiling sun.

He returned to the mother ship, presented a pricelist for a wide range of forcefields guaranteed impervious to atomic explosion and radiation. He seemed to think that each of the world's towns and cities were a likely buyer. The price, he pointed out, was modest. France, for instance, had spent 7 billion dollars in 1983 on arms and national defense. His firm would be happy to install a forcefield in every town in France with more than 500 inhabitants for only 7 billion dollars—one year's armament spending. In a country such as Andorra, which had spent nothing, the forcefield would be gratis. For the USA and the USSR? He shrugged. They should have reduced their arms budgets long ago. . .

WHEN THE WORLD'S cities had been fortified by the Swiss Peace-Profiters as they liked to call themselves, OreOc's West Coast labs launched the grav-sled, and the

Ridersons acquired General Motors, Ford, Chrysler, American Motors, Boeing, MacDonald-Douglas, Pratt & Whitney and the rest of the aerospace industry. When the shockwaves hit the oil industry, Exxon, Gulf, Texaco, and the others followed. Petrochemically-produced plastic was necessary for the grav-sled bodies, and a reluctant but shell-shocked Justice Department allowed the merger of the petroleum industry with the automobile and aerospace industries to form a company with assets superior to those of all but three of the world's nations.

The company was named, and this is true, General Hilarity, Inc.

Why, as opposed to specific gravity, of course.

Few people found the joke in good taste, especially the 3 million steel-workers in an industry which had just gone out of business.

The basic 2-seater 80-MPH grav-sled was offered for sale within the United States for \$999.99 including Federal and state tax. 67 million were sold the first year and the spectre of the Great Depression receded forever.

Sales forces moved into Europe, Africa, and Asia, where stripped-down models were sold for as low as \$249. They were unanimously refused permission to penetrate the Iron Curtain. The salesmen shrugged and turned away. 200 million orders were waiting elsewhere.

When the world's initial voracious demand had been slaked, 40

million 300-MPH models appeared pilotless above the cities behind the Iron Curtain and floated down smoothly to a landing. 7 million were immediately confiscated by officials. Of the remaining 33 million, 21 million appeared two days later on the other side of the Iron Curtain, bearing with them 97 million people.

2,541 hydrogen devices failed to detonate over the United States. The forcefield had been supplemented by a damper-field.

The Congress of the United States declared war upon the Soviet Union and the People's Republic of China. The Iron Curtain countries were attacked by 100 million unarmed, unpiloted grav-sleds, most of which had been drafted from the long-suffering American people. 300 million Russians and Chinese bypassed the ragged tatters of the Curtain, and the war ended three days later. VanPestel had been wrong with his prediction. It had taken 3 years, 4 months, and 23 days for the last Communist state to wither away.

Worldwide, 357 billion dollars were scratched from armaments and invested in the production of housing, food, and industry. The engineers at General Hilarity augmented the lift-capacity of the grav-sled by a power. The American steel industry and 6 million allied workers were bodily moved to the Federated States of China; 27 million Chinese left for Siberia to

begin the exploitation of the globe's greatest storehouse of untapped natural treasure; 3 million Russian aerospace workers and engineers were invited to the United States by General Hilarity. Passports disappeared.

The King of Diamonds added an additional 27 acres of plant and laboratories to its Texas research center.

OreOc placed on the market a device for extracting oxygen from rock. Its applications were expected to be limited.

India increased the capacity of the industrial grav-haul to yet another power, mated it to a force-field, scooped up 200 cubic miles of Indian Ocean and 57 million Indians, and announced from Gandhi-opolis-on-the-Grand-Canal that the terraformation of Mars had begun.

Worldwide per-capita income rose from \$243 to \$756 to \$1,761 to \$3,937. A Japanese was elected President of the Directorate of Global Resources, the successor to the United Nations. Thirty-one million people were now working for Erickson, Franklin and vanPestel.

Transmutation and controlled fusion were announced simultaneously.

Also the first tachyon probes were being launched toward the nearer stars.

Components from around the world began to be delivered to The King of Diamonds, Inc. Under the

direction of the SpaceMaster-Scout, Ridersons I, II, and III installed and tested the new power unit.

As soon as full power was operational, Riderson I had a short, acrid conversation with Professor Camptargo at the Museum of Comparative Anthropology 17,000 light years away.

"He curses us as ham-handed meddlers," he explained to Ridersons II and III, "as despoilers of a virgin paradise now unsuitable for serious ethnological study. He reviles us as selfish, egotistical, self-serving oafs unfit to represent the University in any capacity higher than bottlewasher.

"He begs me to inform the SpaceMaster-Scout that had it wheels it might be suitable as a lawn-mower. He gives us 30-days' notice and no letter of recommendation. In brief, he's given us the boot."

Riderson II grinned. "The Earthlings are mounting their first expedition to Centauri next year. One of these days, when they land in the University football stadium he'll be even less pleased."

"Talk, talk, talk," admonished Riderson III. "Let's get going before the natives learn how we've despoiled their paradise." He thumbed a button.

The ship floated up through an empty warehouse and into the evening sky. It hovered for a moment, then it dwindled, diminished, and was gone.

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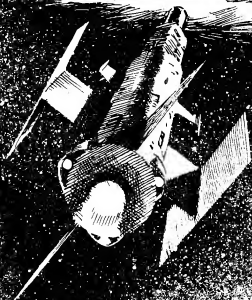
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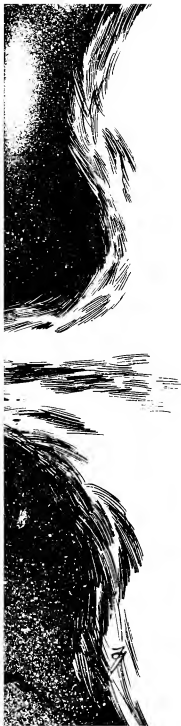
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RIM Change

*On Kinsolving's Planet
it was Grimes—against—Nature!*

A. BERTRAM CHANDLER





I'M A SORT OF EXCEPTION that proves the rule.

And that, oddly enough, is my name—George Rule, currently master in the employ of the Dog Star Line, one of the few independent shipping companies in the Federation able to compete successfully with the state-owned Interstellar Transport Commission. When I was much younger I used to be called, rather to my embarrassment, Golden Rule. That was when my hair, which I tend to wear long, and my beard were brightly blond. But, given time, everything fades, and my nickname has faded away with my original colouring. In uniform I'm just another tramp master—and the Odd Gods of the Galaxy know that there are plenty of such in the Universe!—and out of uniform I could be the man come to fix the robochef. It's odd—or is it?—how those engaged in that particular branch of robotics tend to run to fat. . .

But this exception business. . .

The space services of the Rim Confederacy are literally crawling with officers who blotted their copy books in the major shipping lines of the Federation and various autonomous kingdoms, republics and whatever, and even with a few who left certain navies under big black clouds. The famous Commodore Grimes, for example, the Rim Worlds' favourite son, isn't a Rim Worlder by birth; he was emptied out of the Federation Survey Ser-

vice after the *discovery* mutiny. (It was Grimes, by the way, who got me emptied out of Rim Runners, the Confederacy's state shipping line, many years ago.)

I am a Rim Worlder by birth. I'm one of the very few spacemen who was born an Outsider and who now serves in the Insiders' ships, the very opposite to all those Insiders who, for reasons best known to themselves, came out to the Rim. I was one of the first cadets to pass through the Confederacy's space training college at Port Last, on Ultimo. I started my space-going career as Fourth Mate of the old *Rim Mammoth* and then, after I gained my Second Mate's Certificate, was appointed Third Mate of *Rim Tiger*. Captain—as he was then—Grimes was master of her. He was a real martinet in those days.

Now that I'm master myself I can appreciate his reasons for wanting to run a taut ship. The affair aboard *Discovery* must still have been vivid in his mind and probably he was thinking that if he'd been less easy going the mutiny would never have happened. I didn't take kindly to the sort of discipline that he tried to impose. *Rim Mammoth* had been a very happy ship; the *Tiger* was far from it. Looking back on it all, any Third Mate of mine who tried to get away with the things that I tried to get away with would get a rough passage and a short one.

Anyhow—it was after I'd scrambled aboard at Port Fortinbras, very much the worse for wear, about two microseconds prior to lift-off—I was called into the Sacred Presence. Before he could start on me I told him what he could do with his Survey Service ideas. Then I told him what he could do with his ship. I told him that I wasn't at all surprised that *Discovery's* officers had done what they did. . . And so on.

I don't blush easily, but the memory of that scene induces a blush from my scalp to the tips of my toes. I was lucky, bloody lucky, not to have been pushed out through an airlock without a spacesuit. (At the time we were, of course, well on our way to Port Forlorn.) Oh, I was escorted to the airlock after our landing on Lorn, taken to the Shipping Office and paid off, and told that it was extremely unlikely that Rim Runners would ever require my services again.

But I was lucky:

(a) I got a job.

(b) I got a job that took me away from the Rim.

(c) I got a job that exercised a certain civilizing influence (badly needed, I admit now) on me.

You may remember when Trans-Galactic Clippers used to include the Rim Worlds in the itinerary of their Universal Tours. One of their big ships—*Sobraon*—was in, and her Fourth Officer, who had incurred multiple injuries in a rented air car crash, was in hospital. The

post was mine, I was told, until such time as a regular TG man was available to relieve me.

I took it, of course, hastily affixing my autograph to *Sobraon's* Articles of Agreement before Captain Grimes could breathe a few unkind words into the ear of Captain Servetty, who was to be my new boss. And it was with great relief that I watched, from the Clipper's control room, the lights of Port Forlorn fading below us as we lifted. I decided, then, to make the most of this second chance. I decided, too, that I'd not return to the Rim Worlds, ever.

There was nothing to hold me; I was an orphan, and had never gotten on with the various aunts and uncles on either side of my family. I'd had a girl, but she'd ditched me, some time back, to marry a wind turbine maintenance engineer. This broken romance had been one of the reasons—the main reason, perhaps—why I'd been such a pain in the neck to old Grimes. As the Universal Tour proceeded everything that I saw—the glamorous worlds such as Caribbea, Electra and all the rest of them—stiffened my resolution. The Rim Worlds were so dreary, and the planets of the Shakespearean Sector were little better.

This was before Grimes, commanding *Faraway Quest*, had discovered the worlds of what is now known as the Eastern Circuit—Tham, Mellise, Grollor and Stree.

All that we had then were Lorn, Faraway, Ultimo and Thule—and, of course, Kinsolving's Planet and Eblis. But nobody ever went near either of those.

Sobraon knocked quite a few corners off me. There's a saying that you often hear, especially in star tramps, that Trans-Galactic Clippers is an outfit where accent counts for more than efficiency. Don't you believe it. Those boys may convey the impression of taking a cruise in daddy's yacht, but they're superb spacemen. They play hard at times—but they work hard.

I played with them—and I like to think that I pulled my weight when it was time to work. I was genuinely sorry when I paid off at Canis Major—Dogtown to we Sirians—the capital city of the Sirian Sector. There was a new Fourth Mate, a Company boy, waiting for us there, so Captain Servetty had to take him on. He told me, though, that if I cared to fill in a TG Clippers application form he'd see to it that it received special consideration. I thanked him, of course, and I thought about it. I didn't have to think very hard about the repatriation to the Rim Worlds to which I was entitled. I took the money in lieu and decided to treat myself to a holiday.

It was while I was enjoying myself at New Capri that I met Jane. She too was on holiday—on annual leave, as a matter of fact. She was at that time a Purser with the Dog

Star Line. It was largely because of her that I became a kennelman myself; I became a naturalized Sirian citizen shortly after we married. She gave up spacefaring when our first child was on the stocks.

Oh well, it's nice having your wife aboard ship with you—but it's also nice to have a home, complete with wife and children, to come back to. You can't have it both ways. And most of the time I got ships that never wandered far from Dogtown, and was contented enough as I rose slowly—but not too slowly—through the ranks from Third to Second, from Second to Chief and, finally, from Chief Officer to Master.

But now, after all these years, I was coming back to the Rim.

THE DOG STAR LINE ships spend most of the time sniffing around their own backyard, but now and again they stray. *Basset* had strayed, following the scent of commerce clear across the Galaxy. At home, on Canis Major, I'd loaded a big consignment of brassards and self-adjusting sun hats for Arcadia. I must find out some time how those brassards sold. They were made with waterproof pockets for smoking requirements, small change, folding money &c &c. The Arcadians, who practice naturism all the year round, have always seemed to manage quite well with a simple bag slung over one shoulder.

At Ursa Major (the Arcadians have a childish love of puns) I filled up with the so-called Apples of Eden, a local fruit esteemed on quite a few worlds. These were consigned to New Maine. And what would one load in Port Penobscot? Need you ask? Smoked and pickled fish, of course, far less fragrant than what had been discharged. This shipment was for Rob Roy, one of the planets of the Empire of Waverley.

The cargo we loaded on Rob Roy was no surprise either. The Jacobians, as they call themselves, maintain that their whisky is superior to the genuine article distilled in Scotland. It may be, it may not be; whisky is not my tippie. But the freight charges from the Empire of Waverley to the Rim Confederacy are far less than those from Earth to the Rim.

So *Basset* had followed the scent of profit clear from the Dog Star to the Rim, and now it looked as though the trail was petering out. On the other legs of the voyage Head Office, by means of Carlotti radio, had kept me well informed as to what my future movements would be. On my run from Rob Roy to Lorn they had remained silent. And Rim Runners, my agents on Lorn, had replied to my ETA with only a curt acknowledgement. I didn't like it. None of us liked it: we'd all been away from home too long.

Probably I liked it less than my

officers. I knew the Rim Worlds; I could think of far nicer planets to sit around awaiting orders.

We found the Lorn sun without any trouble—not that we should have had any trouble finding that dim luminary. Even if we hadn't been equipped with the Carlotti Direction Finder, and even if the Rim Worlds hadn't been able to boast the usual lay-out of Carlotti Beacons, we'd have had no trouble. There's the Galactic Lens, you see, and it doesn't thin out gradually towards its edges; the stars in the spiral arms are quite closely packed. (I use the word "closely" in a relative way, of course. If you had to walk a dozen or so light years you wouldn't think it was all that close.) And then there's that almost absolute nothingness between the galaxies. Almost absolute...

There's the occasional hydrogen atom, of course, and a few small star clusters doing their best to convey the impression that they don't really belong to the galactic family. The Rim Confederacy is one such cluster. There are the Lorn, Faraway, Ultimo, Thule, Ebilis and Kinsolving suns. To the Galactic East there's a smaller cluster, with Tharn, Grollor, Mellise and Stree. To the West there's a sizeable anti-matter aggregation, with a dozen suns. So, as long as you're headed in roughly the right direction when you break out of the Lens, you have no difficulty identifying the cluster you want.

RIM CHANGE

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You have the Galactic Lens astern of you. When the space-time-twisting Mannschenn Drive is running it looks like an enormous, slowly squirming, luminescent amoeba. Ahead there's an uncanny blackness, and the sparse, glimmering, writhing nebulosities that are the Rim Suns seem to make that blackness even blacker, even emptier. And that emptiness still looks too damned empty even when the interstellar drive's shut down and the ship's back in the normal Continuum.

I could tell that my officers were scared by the weird scenery—or lack of it. I was feeling a bit uneasy myself; it was so many years since I'd been out here. But we got used to it after a while—as much as one can get used to it—and here we were at last, dropping down through the upper atmosphere of Lorn. The landing was scheduled for 0900 hours, Port Forlorn Local Time. We couldn't see anything of Port Forlorn yet, although we had clearance from Aerospace Control to enter and were homing on the radio beacon. Beneath us was the almost inevitable overcast, like a vast

snowfield in the sunlight, and under the cloud ceiling there would be, I knew, the usual half gale (if not something stronger) probably accompanied by rain, snow, hail or sleet. Or all four.

"How does it feel to be coming home, sir?" asked my Chief Officer sarcastically.

"My home's in Canis Major!" I snapped. Then I managed a grin. "If you'll forgive my being corny, home is where the heart is."

"You can say that again, Captain," he concurred. (He was recently married and the novelty hadn't worn off yet.)

I took a last, routine look around the control room, just to make sure that everybody was where he was supposed to be and that everything was working. Soon I'd have to give all my attention to the inertial drive and attitude controls and to the periscope screen; inevitably I'd have to do some fancy juggling with lateral and downthrusters. Rugged, chunky Bindle, the Chief Officer, was strapped in the co-pilot's chair, ready to take over at once if I suffered a sudden heart attack or went mad or something. Loran, the Second, was hunched over the bank of navigational instruments, his long, skinny frame all awkward angles and the usual greasy black cowlick obscuring one eye. His job was to call out to me the various instrument readings if, for some reason, such data failed to appear on the periscope screen. Young Taylor, the

Third, an extraordinarily ordinary looking youth, was manning the various telephones, including the NST transceiver with which we were in communication with Aerospace Control. In most Dog Star Line's vessels this was the Radio Officer's job, but I had found that our Sparks, Elizabeth Brown (Betty Boops, we called her) was far too great a distraction. Even when she was wearing a thickly opaque uniform blouse (she preferred ones which were not) her abundant charms were all too obvious.

We fell steadily, the inertial drive grumbling away in its odd, broken rhythm, healthily enough. We dropped into the upper cloud levels, and at first pearly grey mist alternated with clear air outside our viewports. And then, for what seemed like a long time, there was only dark, formless vapour. The ship shuddered suddenly and violently as turbulence took her in its grip. The changing code of the blips from the radio beacon told me that I was off course, but it was early yet to start bothering about corrections.

We broke through the cloud ceiling.

Looking into the screen, stepping up the magnification, I could see that there had been few changes during my long absence. The landscape, as always, was grey rather than green, almost featureless, although on the horizon the black, jagged peaks of the Forlorn Range loomed ominously. There were the

wide fields in which were grown such unglamorous crops as beans and potatoes. There was the city, which had grown only a little, with the wind turbine towers and the factory chimneys in the industrial suburbs, each smokestack with its streamer of dirty white and yellow vapour. Yes, it was blowing down there all right.

And there was the spaceport, a few kilometers from the city. I could see, towards the edge of the screen, the triangle of bright red flashing beacons on the apron. They were well to leeward, I noted, of the only other ship in port. This, I had been told, was *Rim Osprey*. There would be enough clearance, I thought hopefully, although I wondered, not for the first time, why Port Captains, with acres of apron at their disposal, always like to pack vessels in closely. I applied lateral thrust generously, brought the beacons to the exact centre of the screen.

At first it wasn't too hard to keep them there, and then we dropped into a region of freak turbulence and to the observers in the Port Forlorn control tower it must have looked as though we were wandering all over the sky. An annoying voice issued from the NST speaker, "Where are you off to, Captain?"

"Don't answer the bastard!" I snarled to Taylor.

I had control of her again and, as well as maintaining a steady rate of

descent, corrected the ship's attitude. We dropped rapidly and the numerals of the radar altimeter display were winding down fast. I was coming in with a ruddy blush—but that, I had learned years ago, was the only way to come in to Port Forlorn. I said as much to Bindle, who was beginning to make apprehensive noises. "Try to drop like a feather," I told him, "and you'll finish up blown into the other hemisphere. . ."

I heard Loran mutter something about a ton of bricks, but ignored him.

There was little in the screen now but dirty concrete and the flashing beacons, marking the triangle in the centre of which I was supposed to land—but only when my stern vanes were below the level of the top of the control tower did I step up downthrust. The ship complained and shuddered to the suddenly increased power of the inertial drive.

I was beginning to feel smug—but what happened then wiped the silly grin off my face. I had been leaning, as it were, into the wind—and suddenly, as we came into the lee of the administration block, there was no longer any wind to lean against. Worse still, there was a nasty back eddy. I reversed lateral thrust at once, of course, but it seemed ages before it took effect. The marker beacons slid right to the edge of the screen, right off it. Then, with agonizing

slowness, they drifted back, not far enough. . .

But we were down. I felt the slight jar and the contact lights came on. I cut the drive. *Basset* trembled and sighed as she sagged down into the cradle of her tripedal landing gear, as the great shock absorbers took the weight of her. With a steady hand—but it took an effort!—I fished a packet of Carib panatellas out of my breast pocket, struck one of the long, green cylinders and stuck the unlit end between my lips. (I almost did it the wrong way round, but noticed just in time.) I checked all the tell-tales, saw nothing wrong and ordered quietly, "Make it Finished With Engines."

Nobody acknowledged the order. I looked around indignantly. All three officers were staring out through one of the viewports. "Gods! That was close! Bloody close!" the Mate was muttering.

I stared through that viewport myself. Yes, it had been close. Another metre over towards the administration block and one or other of our stern vanes would have torn down the side of the other ship, ripping her open like a huge can opener. I unsnapped my belt, walked a little unsteadily to join the officers at the viewport. We could look directly into our neighbour's control room. A junior officer, the shipkeeper, was staring across at us. His face was still white. It had reason to be.

"Port Forlorn Control to *Basset*," came from the speaker of the NST transceiver. "Do you read me?"

"Loud and clear," I replied automatically into the microphone.

"Port Forlorn Control to *Basset*. You are far too close to *Rim Osprey*. For your information, she is not a lamp-post." (*Funny bastard*, I thought.) "You will have to shift. Oh, by the way, you also destroyed two of our marker beacons when you set down. Over."

I shrugged. It's a rare master who hasn't rubbed out the occasional marker beacon. And, after all, they're cheap enough. (But *Rim Osprey* wouldn't have been cheap if I'd hit her. But I hadn't hit her. So what?

Finally, after the ground crew had set out new beacons, I tackled the ticklish job of shifting ship. I managed it with no damage except for a slightly dented vanepad and a long scratch on the concrete apron. (*Straight as though drawn with a rule*, the Mate remarked. I forgave him, but it wasn't easy.)

When we had reberthed to the Port Captain's approval Customs and Port Health boarded to clear us inwards. Both officials were quite amazed to find that my place of birth, as shown on the Crew List, was Port Forlorn. They had to say, of course, that I had gone to the dogs. My Agent—Rim Runners' Port Forlorn Branch Manager—made the same feeble joke. Finally

we got down to business. He said, "I've nothing for you at the moment, Captain. My last instructions from your Owners were to try to arrange some sort of charter for you locally. . ."

I told him, rather plaintively, "But I want to go home. . ."

He replied cheerfully, "But you *are* home. Lives there a man with soul so dead, and all that. Don't you have friends or relatives here? And you were in Rim Ridders once, weren't you?"

"I was," I admitted.

"Then you must know Commodore Grimes, our Astronautical Superintendent. He's in Port Forlorn now, as a matter of fact. . ."

"The commodore and I didn't part on the best of terms," I said carefully.

"Time wounds all heels," he told me. "Shall I tell him you're here?"

"Perhaps not," I said.

"He'll know anyhow, Captain. He always likes to look through the crew-lists of strange ships that come in here." He laughed. "He could be looking for *your* name!"

"I should have changed it when I changed my nationality," I said. "But I doubt if he'll want to see *me* again."

ODDLY ENOUGH—OR not so oddly—nobody went ashore that day. The weather was partly to blame; shortly after our final berthing a cold driving rain had set in.

RIM CHANGE

Too, all the way to Lorn I'd been telling everybody how drab and dreary the Rim Worlds are, and they must have at least half believed me.

And then, after dinner that night, a little party started in the wardroom. We were all relaxing after the voyage and we had a few drinks, and a few more, and then. . . You know how it is. And, as always, we finished up in full voice, singing our Company's anthem.

All the big outfits have one, usually some very old song with modern words tacked on to the antique melody. In the Waverley Royal Mail they have their own version of *Fly, bonny boat, like a bird on the wing*. In TG Clippers it's one of the ancient Terran sea chanteys, Sally Brown. (*Way, hey, roll and go!*) Rim Runners have a farewell song from some old comic opera. (*Goodbye, I'll run to find another sun! Where I may find! There are hearts more kind than the ones left behind.* . .)

And ourselves, the Dog Star Line? The choice is obvious.

"How much is that doggy in the window?"

(Arf! Arf!)

"The one with the great big glass eyes. . ."

"How much is that doggy in the window?"

"I think she looks ever so nice"

"I don't want a Countess or a Duchess,

"I don't want an Empress with wings. . ."

(This, of course, a dig at the Waverley Royal Mail Line.)

"I don't want an Alpha or a Beta. . ."

(The two biggest classes of ship in the Interstellar Transport Commission.)

"Or any of those fucking things!"

"How much is that doggy in the window?"

(Arf! Arf! Arf!)

"The one with the Sirius look,

"How much is that doggy in the window?"

"Please put my name down in her book!"

We were all happily arfing away, with a few yips and bow-wows, when the Mate noticed a visitor standing just outside the wardroom door. "Come in, come in!" he called. "This is Liberty Hall! You can spit on the mat and call the cat a bastard! But. . ."

We took the cue and roared in unison, "Beware of the dog!"

"That last," remarked a voice, familiar after many a year, "makes a very welcome new addition."

I turned slowly in my chair to look at him. At first I thought that the old bastard hadn't changed a bit.

Then I saw that his hair was grey now, matching his eyes, and that his face had acquired a few new wrinkles. Otherwise it was as it always had been, looking as though it had been hacked rather than

carved out of some coarse textured stone and then left out in the weather. His ears were the same prominent jug handles of old.

"Don't let me interrupt the party, Captain Rule," he went on, slightly emphasizing the title. "I had some business with *Rim Osprey*, and then I thought that I'd call aboard here to see you. But it can wait until the morning."

I got to my feet, extended a slightly reluctant hand. He shook it. "Good to have you aboard, sir," I said in the conventional manner. "Will you join us in a small drink?"

He grinned. "Well, if you twist my arm hard enough. . ."

I introduced him around and found him a chair. If he was bearing no malice—and he had far more reason to than I did—then neither was I. He was very soon completely at home.

Betty Brown—wearing one of her transparent shirts and a skirt that was little more than a pelmet—and Sara Taine, my Purser, sat—literally—at his feet, getting up now and again to bring him savouries or to freshen his drink. I didn't get that sort of service. I thought resentfully, and this was *my* ship. . .He had a fine repertoire of songs and stories, far more extensive than any of ours. Well, he should have done. He had been around so much longer.

At last he raised his wrist and looked at his watch. He said,

"Thank you for the party, but I must be going. . ."

"The night's only a pup, Commodore," Bindle told him.

"It was a bitch of a night when I came aboard," he replied, "and probably still is. Raining cats and dogs. . ." He laughed. "Your Dog Star Line brand of humour seems to be catching. . ."

"Just one more before you go? One for the road?" urged the Mate.

"No. Thank you. I don't want to find myself in the doghouse when I get home. Goodnight, all. Goodnight. Goodnight. . ."

I saw him down to the after airlock.

He told me, "I'll be seeing you in the morning, Captain Rule, if it is convenient."

"Would you mind answering a question before you go, sir? I asked him.

"I'll try. What is it?"

"I've always rather suspected, sir, that you were instrumental in getting me that berth in *Sobraon*. After all, Captain Servetty didn't have to take *me*, of all people. And he must have known why I was. . . available. . ."

"He did know, Captain. He asked me if he should sign you on. I told him that you had the makings of a good officer, but that he'd have to keep a close eye on you."

I said, "If I hadn't been such a self-centred puppy I'd have known that you were still getting over the *Discovery* business. . ."

He said, "Let's forget about it, shall we? It was all so long ago, and so very far away. . ." Suddenly he looked old, then recovered, equally suddenly, his appearance of ageless strength. "Goodnight, Captain Rule." Our handshake, this time, was really sincere. "I'll see you in the morning."

Wrapping his rather flamboyant cloak about his stocky figure he strode down the ramp, ignoring the wind and the rain, let himself into his squat, ugly little ground car, and then was gone in a flurry of spray.

"**T**HAT COMMODORE GRIMES isn't anything like the ogre you made him out to be," said Sara Taine when she brought me in my tea tray the next morning. "I'm looking forward to seeing him again. What time will he be coming aboard?"

I said severely, "He's married. Very happily, I believe."

She frowned. She had one of those thin, serious faces, under sleek, gleaming black hair, on which a frown sits rather well. She complained, "All the attractive men in my life are married. You, and Peter Bindle, and now your old pal Commodore Grimes. . ."

"What about the engineers?" I asked her. "What about the Second and Third Mates? Or the Quack?"

"Them!" she snorted, then grinned softly, "If I wasn't such a good friend of Jane's. . ."

"Don't tempt me, Sara. The way this voyage is dragging on I

shouldn't require so very much tempting."

She had been sitting on the bed, sipping her own cup of tea. She got up, moved to a chair. "That will do, Captain Rule. As I've said, Jane and I are good friends. I want us to stay that way. But it is a pity that she has such archaic ideas about sex, isn't it?" She put her cup back on the tray with a clatter, got up and went out of the bedroom, leaving me to deal alone with the business of getting up to face the day.

Showered and dressed I made my way down to the wardroom for breakfast. There were no absentees; the Doctor had insisted that each of us take a neutralizer tablet before retiring. As you know, they're very effective—but by the time you need them you're in such a state you can't be bothered to take them. That's one of the beauties of having a party aboard ship; you have your own medical practitioner on hand to prescribe as required. . .

Canvey, the Interstellar Drive Engineer, asked what everybody else was intending to ask. He got in first. "Was that only a social call last night, Captain, or did Commodore Grimes have any information about our next loading?"

And then Terrigal, Reaction Drive Engineer, stated rather than asked, "He's coming aboard again this morning, isn't he?"

I told them, "The Commodore is Rim Runners' Astronautical

Superintendent, not their Traffic Manager."

"But he still piles on a lot of gees, doesn't he?" said Canvey.

"I suppose he does," I admitted. I helped myself liberally from the dish of Caribbean tree-crab curry on the table, hoping that it would taste as good as it looked and smelled. (It did. Sara was as good a cook as she was a purser, and even the most sophisticated autochef—which ours wasn't—gives of its best only when imaginatively programmed.) I asked, "How is the crab holding out, Sara?"

"It isn't," she said. "This is the last of it."

"I tried to make a tissue culture," put in Dr. Forbes, who was Bio-Chemist as well as medical officer, "but it died on me. . ." He looked more like a professional mourner than ever as he imparted the bad news.

"Then I hope they send us home by way of Caribbea," I said.

"So there *is* a chance of our getting home," persisted Canvey. He was one of those little, grey, earnest men who always seem to be persisting.

"I'll believe it when we crunch down in Dogtown," said Porky Terrigal glumly, making sure of his second helping of the fragrant curry.

"You must have heard *something*, Captain. . ." went on Canvey.

"I'm just the Master," I told

him. "Nobody ever tells *me* anything."

Breakfast over, I went back up to my quarters. Bindle brought me a morning paper; somebody in Rim Runners' dock office had been thoughtful enough to send copies on board. I lit a cigar, skimmed through it. It was deadly dull. (Other people's local rags are always dull—but this, *The Port Forlorn Confederate*, had been my local rag once. . .) I noted that *Basset* was listed in the Shipping Information column as having arrived. I noted, too, that the date of her departure was given as "indefinite". I knew that already.

I read that the Confederacy's Department of Tourism was thinking about reestablishing the holiday resort on Eblis. I read about the Burns Night party that had been thrown by the Ambassador of the Empire of Waverley. Obviously he couldn't have been waiting for our consignment of Waverley scotch. I read about the Rim Rules Football match between the Port Forlorn Pirates and the Desolation Drovers. I found it hard to raise any interest in the account of the game. Even when I had been a Rim Worlder myself I hadn't been all that keen, and on most of the worlds of the Sirian Sector the game is Old Association, the only *real* football. Finally I found the crossword. It wasn't one of the cryptic variety, just a collection of absurdly simple clues that a retarded child of five could have

solved in four minutes. It only took *me* three and a half.

There was a knock at the door. I threw the paper aside, got out my chair to welcome Commodore Grimes.

He took the seat I offered him, pulled out of his pocket an ancient and battered pipe that looked as though it was the very one that he had always smoked when I last knew him. It smelt like it, too. Sara Taine came in with a tray of coffee things. She seemed disposed to hang around with flapping ears, and looked hurt when I told her, "That will be all, thanks, Sara."

Grimes said, "Quite comfortable quarters you have, Captain Rule."

"Yes," I agreed. "*Basset* and her sister ships are an improvement on the Commission's basic Epsilon design. We have our own yards now in the Sector, of course, and build our own vessels. . ."

"Passenger accommodation?" he asked.

"I can take a dozen, in single berth cabins. More if people are willing to double up."

"Mphm." He looked at me through the cloud of acrid smoke that he had just emitted. I countered with a smokescreen of my own. "Mphm. You know, of course, that we have our own Survey Ship, *Faraway Quest*. . ."

"I've heard of her, sir."

"Well, the *Quest's* out of commission. Will be for some months yet. Oh, she's old, I admit, but

even I didn't know that there were so many things wrong with her until she came up for Survey. . . ." He relit his pipe, which had gone out, using one of the archaic matches that he still affected. "You know Kinsolving's Planet, of course?"

"I know of it, Commodore. I've never been there."

"I have," he told me. "Too often. The things that have happened to me there shouldn't happen to a dog. Well, the Port Forlorn University wants to send another expedition to Kinsolving. Normally I'd have been their bus driver, in *Faraway Quest*. But she, as I've told you, is grounded. And our Navy won't lay a ship on for a bunch of civilian scientists, psychic researchers at that. And all of our merchant tonnage, the Rim Runners fleet, is heavily committed for months to come. Do you get the picture?"

"I'm beginning to," I admitted reluctantly.

"Do I detect a certain lack of enthusiasm, Captain Rule? I can't say that I blame you. Oh, well, it shouldn't be hard to arrange a charter whereby we man the ship with our own personnel, while you and your boys and girls are put up in hotels at the Confederacy's expense."

"I stay with my ship," I told him. "And I'm pretty sure that all my people will be of the same mind."

"Good. I was expecting you to say that. So. . . *If* the charter is

arranged—it's not definite yet—you'll be carrying half a dozen scientists, two qualified psionics, the Kinsolving's Planet Advisor and his wife. The Advisor is me, of course. Sonya—my wife—doesn't like that world any more than I do, but she maintains that I'm far less liable to get into trouble if she's along. . . ."

"What *is* wrong with Kinsolving?" I asked.

"You're a Rim Worlder born," he said. "You know the stories."

Yes, I knew the stories, or some of them. Kinsolving had been colonized at the same time as the other Rim Worlds, but the colonization hadn't stuck. The people—those of them who hadn't committed suicide, been murdered or vanished without trace—were taken off and resettled on Lorn, Faraway, Ultimo and Thule.

They all told the same story—oppressive loneliness, even in the middle of a crowd, continuous acute depression, outbreaks of irrational violence and, every night, dreams so terrifying that the hapless colonists dreaded going to bed. One theory that I remembered was that Kinsolving is the focal point of. . . forces, psychic forces. Another theory was that around the planet the fabric of our Universe is somehow strained, almost to breaking point, and that some of the alternate Universes aren't at all pleasant by our standards. But you don't have to go to Kinsolving to get the feeling that if you make an effort

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you'll be able to step into another Continuum; that sensation is common enough anywhere on the Rim. But it's on Kinsolving that you know that no effort at all is necessary, that a mere sneeze would suffice to blow you out of the known Universe into. . . Into Heaven? Maybe, but the reverse would be more likely.

"Kinsolving," said Grimes softly, "is a sort of gateway. . . It's been opened quite a few times, to my knowledge. I'd as lief not be involved in its opening, but. . ." he shrugged. . . "it seems to be my fate always to be involved with the bloody planet."

There was a heavy silence, which I thought I'd better break. "The professional psionics you mentioned. . . ?"

"Old friends of mine," he told me. "Ken Mayhew. One of a dying breed. He was a Psionic Communications Officer long before the Carlotti System was dreamed of. He still holds his commission in the Rim Worlds Naval Reserve. And Clarisse, his wife. A telepath and a teleporteuse. Both of them know Kinsolving."

"And does this Mayhew," I asked, "still cart his personal amplifier around with him? I can remember the old-time PCOs and how they used to make pets of those obscene, disembodied dogs' brains. . ."

"Ken used to keep his poodle's brain in aspic," said the Commo-

dore, "but not any longer. He and Clarisse work as a team. She amplifies for him when he's sending or receiving, and he for her when she's teleporting."

"And the scientists? Any weirdos among them?"

"Oddly, enough, no. They study psychic phenomena without being in any way psychic themselves. They've cooked up some fantastically sensitive instruments, I understand, that can measure the slightest variations of temperature, atmospheric pressure, electrical potential and whatever. They have their own theory about Kinsolving, which is that the planet is actually haunted, in the good, old-fashioned way. And for a ghost to appear and speak and throw things around it must get energy from somewhere. A drop in temperature, for example, indicates that energy is being used." He laughed, rather mirthlessly. "It makes a change from all the other ideas about Kinsolving—multi-dimensional universes and all the rest of it. . ."

"And what are *your* ideas about it, sir?" I asked.

"Kinsolving," he said, "is a world where anything can happen and almost certainly will."

The charter was arranged; our Canis Major Head Office was happy enough that profitable employment had been found for *Basset*. We, *Basset's* crew, were not so happy. We were all a long way from home, and too long a time out, and this

excursion to Kinsolving would inevitably delay our departure from the Rim Worlds for the Sirian Sector.

There was one slight consolation; we were not kept hanging around long on Lorn. One day sufficed for the discharge of our inward cargo. It was a matter of hours only to ready the passenger accommodations for occupancy. There was the routine overhaul of all machinery, which took four days, and while this was in progress extra stores were taken on and the crates and cases containing the scientists' equipment loaded. On the morning of the sixth day the passengers boarded.

Ken and Clarisse Mayhew I had already met at Grimes' home, where he and Sonya, his wife, had had us all to dinner. Ken was a typical telepath, one of the type with which I have become familiar in the days when the only FTL communication between ships and between ships and planet-bases stations was through the PCOs. He was tall, inclined to be weedy, with mousy hair, muddy eyes and an other-worldly appearance. Clarisse was another kettle of tea, not at all conforming to the popular idea of a psionist. She was a very attractive girl with brown hair and brown eyes, strong featured, although a mite too solidly built for my taste. Sonya Grimes, however, was the sort of woman for whom I could fall quite easily; tall and slim, with

a thin, slightly prominent nose and a wide mouth, remarkable violet eyes, sleek auburn hair. Her figure? She could have worn an old flour sack and made it look as though it had been imported at great expense from Paris, Earth.

The commodore and his wife were guests in the control room during liftoff. Sonya was a spacewoman, I had learned earlier, and although married to a Rim Worlder she still retained both her Federation citizenship and her Survey Service commission. Grimes, I could see, was just itching to get his own paws on the controls. (He had confided to me that, at times, he found the life of a desk-borne commodore more than a little irksome.) But he sat in one of the spare chairs, well out of the way, watching. I don't think that he missed anything. Sonya was beside him. She laughed when we went through our own Dog Star Line ritual after the routine checks for spaceworthiness.

The junior officer present—young Taylor, the Third—demanded in a portentously solemn voice, "What is the Word?"

We all roared in reply, "Growl you may, but go you must!"

Sonya, as I have said, was amused. She whispered to her husband, "I'm beginning to find out why this company's ships are called the chariots of the dogs. . . ." I knew what she meant. That Twentieth Century book, *Chariots of the Gods*, is still regarded as a Bible by

those people who believe in the Old Race who started all the present civilization extant in the Galaxy.

Aerospace Control gave us clearance to lift, wished us *bon voyage*. We climbed into what was an unusual phenomenon for Lorn, a clear sky. Soon the spaceport was no more than a huddle of model buildings far below us, with three toy ships on the apron. (*Rim Kestrel* and *Rim Wallaby* had come in before our departure; *Rim Osprey* was due to leave, for the worlds of the Eastern Circuit, later in the day.)

The little bitch was handling well. I took her up easily, not trying to break any records. I heard Sonya murmur, "George isn't like you, John. He doesn't show off using his auxiliary reaction drive when there's no need for it. . . ." Grimes replied with a far from expressionless *mphm*.

Lorn, with its wide, dreary (even in the sunlight) plains, its jagged, snow-capped mountains, diminished below us, became a mottled globe, grey-brown land, green-blue water, white snow. Still we drove upward, through and clear to the Van Alsens.

The inertial drive was shut down and the directional gyroscopes grumbled into life, swinging the ship about her axes, bringing her head around to point almost directly at the target star, the Kinsolving sun, a solitary spark in the empty blackness. On the ship's beam glowed the iridescent lens of the

Galaxy, spectacular and, to those of us not used to seeing it from outside, frightening. I steadied her up on the target, making a small allowance for drift. I restarted the inertial drive and then started the Mannschenn Drive, the space-time-twister.

As on every such occasion I visualized those gleaming rotors spinning, precessing, fading as they tumbled down the warped dimensions fading yet never vanishing, dragging the ship and all aboard her into that uncanny state where normal physical laws held good only within the fragile hull. There was the long second of *deja vu* during which time seemed to run backward.

Inside the control room colours sagged down the spectrum and perspective was distorted, and all sounds were as though emanating from a distant echo chamber. Then all snapped back to normal, although the thin, high whine of the drive was a constant reminder that nothing was or would be normal until we were at our destination. And there was nothing normal outside the ports, of course. Ahead the Kinsolving sun was a writhing, multi-coloured nebulosity, and on the beam the Lens was a pullulating Klein flask blown by a drunken glass blower. It looked as though it were alive. Perhaps it was alive. Perhaps only with the Mannschenn Drive in operation do we see it as it really is. . .

I dismissed the uneasy thought from my mind. I said to Bindle, "Deep Space routine, Mr. Mate."

"But who will keep the dog watches?" asked Taylor.

"You're all watchdogs," I replied.

"More of your ritual?" asked Sonya interestedly.

"Yes," I admitted, feeling absurdly embarrassed. "I suppose it does sound rather childish to an outsider. . ."

Grimes laughed. "I remember one ship I was in when I was in the Survey Service. The cruiser *Orion*. We called her *O'Ryan*, of course, and everybody had to speak an approximation to Irish dialect, and *our* song, just as *Doggy In The Window* is your song, was *The Wearin' Of The Green*. . ."

"Still rather childish," his wife said, but her smile took any sting out of the words.

Grimes said, "Well, Captain Rule, are you coming down to meet the customers?"

I said, "I suppose it's one of the things I'm paid for."

THE CUSTOMERS—the passengers—were in their own saloon. Ken and Clarisse Mayhew I had already met, of course, the others, until now, had been no more than names on the passenger list. There was a Dr. Thorne—I never did get it straight what exactly he was a doctor of—and his wife.

They were Jack Spratt and Mrs. Spratt in reverse, he a bearded, Falstaffian giant, she a grey, wispy sparrow. There were two, almost identical young men; mousey, studious, bespectacled. Their names were Paul Trentham and Bill Smith. The two young women could have been their sisters, but were not. One was Susan Howard, the other Mary Lestrangle. They were friendly enough—not that they overdid it.

Sara, ever efficient, had seen to it that the bar in the saloon was well stocked. Thorne took over as barman; the drinks soon dispelled the initial stiffness of this first meeting. I rather took to the leader of the expedition and he to me. I felt that I would be able, without giving offense, to ask him a question that had been bothering me slightly.

"Tell me, Doctor," I put to him, "why don't you have any mediums along? You have two psionicsists, sure, but they are, essentially, communications specialists, and by communications I don't mean communications with the dear departed."

He laughed, a little ruefully. "One thing that our researches have taught us is this. There are many, many phoney mediums. Even the genuine ones sometimes, although not always intentionally so."

"What do you mean, exactly?"

"Look at it this way. A genuine medium is determined to deliver the goods. If the goods aren't forthcoming, because conditions aren't right, perhaps, then he or she would just

hate to disappoint the customers. Quite possibly subconsciously—but now and again consciously—fake results are delivered. The main trouble, I suppose, is that the average medium doesn't have it drummed into him, all through a long training, that high standards of professional ethics must be maintained. A graduate of the Rhine Institute, however—such as Ken Mayhew—is bound by the Institute's code of ethics. He is therefore far more reliable than any medium."

"But you do believe in spiritualism, don't you?"

"I believe that there are hauntings. I believe that Kinsolving's Planet is haunted. I—we—want to find out by whom. Or what."

"I seem to be spending my life finding out," grumbled Grimes. "But every time I get a different answer."

"Perhaps you're a catalyst, Commodore," suggested Mrs. Thorne.

"And perhaps Captain Rule is a dogalyst," said Sonya.

I tried to laugh along with the rest at the vile pun—jokes about the Dog Star Line are all right when we make them, but. . .

THE VOYAGE was a relatively short one. It was like all other voyages, except that at the latter end of it we should not be landing at a proper spaceport with all the usual radio-navigational aids. There would be no bored voice coming from the

NST speaker, talking us down. There would be no triangle of beacons to mark our berth on the apron. Come to that, there would be no apron. The spaceport had become a sizeable crater when *something* had destroyed the Franciscan ship *Piety* a while ago.

Grimes had brought his charts with him. Together we studied them. He advised me to make my landing in the old Sports Stadium, on the shore of Darkling Tarn, not far from the city of Enderston, the ruins of which stood on the east bank of the Weary River. Those colonists had shown a morbid taste in place names. . . That applied to all the Rim Worlds, of course, but Kinsolving took the prize for deliberately miserable nomenclature.

The commodore acted as pilot when we finally made our approach; he had been on Kinsolving before, more than once, and he possessed the local knowledge. I handled the controls myself, of course, but he was in the chair normally occupied by Bindle, advising.

We were making an early morning descent—always a wise policy when landing on a world without proper spaceport facilities. The lower the sun's altitude, the more pronounced the shadows cast by every irregularity of the ground. Too, when an expedition arrives at sunrise it has all the daylight hours to get itself organised. Left to myself, I'd have arrived when I arrived and not bothered about such niceties. It

was Grimes, with his years of Survey Experience behind him, who had urged me to adopt Survey Service s.o.p.

So we were coming down after a few hours of standing off in orbit. Already there was enough light for us to be able to make out details of the landscape beneath us. There was the Weary River—and with all the twists and turns it was making it was small wonder that it was tired! There was the Darkling Tarn—looking, Grimes said, like an octopus run over by a steamroller. Bindle loosed off the sounding rock-ets that, at Grimes' insistence, had been added to our normal equipment. Each of them, in its descent, left a long, unwavering smoke trail: there was no wind to incommode us.

Each of them released a parachute flare that drifted down slowly. As we ourselves dropped, the picture in the periscope screen expanded. We could see the city at last, a huddle of overgrown ruins. We could see the Stadium, an oval of green that was just a little lighter in tone than the near-indigo of the older growth around it. One of the flares had fallen just to one side of the sports ground and started a minor brush fire; the smoke from it was rising almost directly upwards.

At least it would be easier landing here than at the proper spaceport on Lorn. . . Grimes guessed my thoughts. "The ground's level enough, Captain Rule," he

told me. "Or it was, last time I was here."

"Any large animals?" I asked.

"Just the descendants of the stock brought by the original colonists. Wild pigs and cattle. Rabbits. They'll all have sense enough to bolt for cover when they hear us coming down."

In the periscope screen the ground looked level enough. I maintained a slow but steady rate of descent, slowed it to the merest downward drift when there were only metres to go. At last the contact lights flashed on. I cut the inertial drive. The silence, broken at first by the sighing of the shock absorbers and the usual minor creakings and groanings, was oppressive. I looked at the commodore. He nodded, and said, "Yes, you can make it Finished With Engines." Before I did so I glanced at the clinometer. The ship was a little off the vertical, but only half a degree. It was nothing to worry about.

"So we're here," whispered Sonya. "Again." I didn't like the way she said it.

"Shore leave?" asked Bindle brightly. "Of course, we shall want an advance from the Purser first, sir."

"Ha, ha," I said. "Very funny." I looked out through the viewports. This didn't look like a world on which there would be any need for money. It didn't look like a world on which to take a pleasant walk.

Oh, the day was bright enough, and such scenery as was in view was pretty enough, in a jungly sort of way, but. . . It was as though a shadow was over everything, dimming colours and bringing a chill to the air that bit through to the very bones. The sunlight streaming through the viewports was bright, dazzlingly so, to the outer eye—but as far as the inner eye was concerned it could have been the rays of a lopsided moon intermittently breaking through driving storm clouds. I'm not a seventh son of a seventh son or any of that rubbish, and if I applied for admission to the Rhine Institute for training they'd turn me down without bothering with the routine tests, but I do have my psychic moments.

A premonition of impending doom, I thought. I liked the feel of it. I thought it again.

"If you don't mind, Captain Rule," said Grimes, "I'll assume command until such time as we lift off again. The ship is still your charge, of course, but all extra-vehicular activities are my pigeon."

"As you please, sir," I said a little stiffly. He was doing no more than to confirm, in front of witnesses, what had already been decided—but it was essential that my officers have no doubt as to who was boss cocky of the expedition. "Your orders, sir?"

"Please pass the word for everybody, ship's officers and civilian personnel, to assemble in the ward-

room for briefing. I shall just be repeating what I have told you all time and time again during the voyage—but this is a world on which you can't be too careful. This is a planet on which anything might happen, and probably will."

I reached for the microphone and gave the necessary orders.

THE WARDROOM was crowded with everybody packed into it, but there was seating for everybody. Grimes, nonetheless, remained standing. He said quietly, "Of all of us here, only Commander Mayhew, Mrs. Mayhew, Commander Verrill and myself have set foot on Kinsolving before. . ."

Commander Verrill? I wondered, then realised that he meant Sonya.

"As we have told you," he went on, "this is a dangerous world, a very dangerous world. You have heard the story of what happened to the Neo-Calvanist expedition when an attempt was made to invoke the Jehovah of the Old Testament. I was among those present at the time, as was Mrs. Mayhew, and the crater where the spaceport used to be bears witness to the destruction of their ship, *Piety*. You have heard what happened when our own expedition, a little later, tried to repeat that foolhardy experiment. That time there was only one victim—me. And then there was the landing made by the Federation Survey Service's ship, *Star Pioneer*, aboard which Commander Verrill and my-

self were passengers. That time the pair of us got into trouble. . ."

"Of course," Sonya said sweetly, "I wasn't worrying myself sick about you the other times. . ."

"Mphm. Anyhow, this a smaller expedition, than the previous ones and I therefore insist that when excursions are made from the ship there is to be no splitting up; nobody is to go wandering off by himself on some wild goose—or wild ghost—chase. Personal transceivers will be carried at all times. Ship's personnel, acting as escorts to the scientists, will be armed. Captain Rule and all of his officers hold commissions in the Sirian Sector Naval Reserve and are trained in the use of weaponry. . ."

Ha! I thought. *Ha bloody ha!* I remembered, all too well, our practice session at the Navy's small arms range shortly before our lift off from Dogtown. "Miss," the exasperated Petty Officer Instructor had said at last to Betty Boops, "if you *really* want to hurt anybody with that pistol creep up close and hit him over the head with it. . ." And most of the rest of us including myself, weren't much better. Only Sara, the Purser, made a fair showing.

"Compared to the rest of you," the P.O. had said, "she's Annie Oakley." He went on, turning to Betty, "And you, Miss, are Calamity Jane." Sara had been quite pleased. . .

Grimes continued, "You civilian

ladies and gentlemen are not to set foot off the ship without your. . . watchdogs. Is that understood, Dr. Thorne?"

"Understood, Commodore," replied the scientist laconically.

"Good. I don't know about the rest of you, but my belly is firmly convinced that my throat's been cut. I propose that we all enjoy breakfast before getting the show on the road."

THERE WERE, as a matter of fact, two shows to be gotten on the road. One was the small party leaving the ship on foot to poke around the stadium and its environs, the other one flew to the city in the pinnace that we had on loan from the Rim Worlds Navy and that we carried in lieu of one of our own boats, which had been left in Port Forlorn. Like any ship's boat it was not only a spaceship in miniature but could be used as an atmosphere flier. Unlike a merchant-ship's boat, it was armed, mounting a heavy machine gun, a small laser cannon and a rocket projector.

Grimes and Sonya were in the boat-party, as were Ken Mayhew, Dr. Thorne, Rose, his wispy wife, Sara Taine and myself. Sara was pleased at having real guns to play with—somehow she had appointed herself Gunnery Officer of the pinnace—and was hoping that she would have a chance to use them. I was hoping that she wouldn't.

We boarded the boat in its bay. The commodore took the controls, the rest of us disposed ourselves around the small cabin. The inertial drive unit grumbled into life and we lifted from the chocks and then, with the application of full lateral thrust, shot out through the open port into the bright sunlight. Grimes took us round the ship in an ascending spiral. Bindle, who was minding the shop, waved to us from the control room. We were close enough to see his envious expression.

Grimes levelled out, headed for the city. It was not easy to see from this relatively low altitude; when we had been looking down on it the street plan had been obvious enough, but from a height of a mere one hundred metres it looked only like an unusually lumpy piece of jungle in the distance. Oh, there were a few ruined towers, prominent enough, but they were so overgrown that they could have been no more than freak geological formations.

I tried to enjoy the flight. I should have enjoyed it; the bright sunlight was streaming through the ports, the scenery over which we were skimming was unspoiled, I had enjoyed a good breakfast and my after-breakfast cigar was drawing well. And yet. . . For no reason at all—apart from a quite illogical feeling of unease—I kept looking aft. I noticed that the others—apart from Grimes—did so too. (But

Grimes had his rear view screen above the console.) A fragment of half remembered verse kept chasing itself though my mind. How did it go?

Like one that on a lonesome road

*Doth walk in fear and dread,
And having cast a glance behind
Durst no more turn his head,
Because he knows a fearsome fiend*

Doth close behind him tread. . .

Something like that, anyhow. And, in any case, there wasn't any fearsome fiend in our wake. I hoped.

Grimes tapped out his pipe and refilled and relit it for about the fifth time. Sara Taine checked, yet again, the pinnacle's fire control panel. (But could you shoot at ghosts? I wondered. Had anybody had the forethought to substitute silver bullets for the normal machine gun ammo?) Dr. Thorne cleared his throat and, speaking loudly to be heard over the irritable snarl of the inertial drive, asked Mayhew, "Do you *feel* anything, Ken?"

"I suspect," replied the telepath, speaking slowly and carefully, "that something out there doesn't like us. . ."

"A normal state of affairs on this world," grumbled Grimes.

"Are there likely to be any manifestations, Commodore?" said Thorne.

"Anything, no matter how un-

likely, is likely here," was the reply.

Cheerful shower of bastards! I thought.

Rose Thorne—people do tend to be given unfortunate names, although the lady's parents couldn't have been expected to know that she'd marry whom she did—had opened the case that she had carried aboard with her and was tinkering with fragile looking instruments. She was finding out, I supposed, if there were any variations in temperature, gravitational or magnetic fields or whatever. Presumably she discovered no anomalies. In any case, she said nothing. And Ken Mayhew had a very faraway look on his face, was staring into nothingness, a nothingness in which . . . something stirred. That was the impression I got. Cold shivers were chasing themselves up and down my spine.

"Cheer up, George," Sonya admonished me. "The first time here is the worst."

"Not for me it wasn't," grunted the commodore. "Although every time was bad."

"My first time was bad," stated Sonya.

We were over the outskirts of the city now, following a broad street through the cracked surface of which trees and bushes had thrust. On either side of us were the buildings, creeper-covered houses with empty windows peering like dead eyes through the tangled greenery. I

found myself thinking of ancient graveyards—cemetaries in which the victims of massacre had been buried and commemorated, and then, after many years, forgotten. Something, disturbed by our noisy flight, scuttled below and ahead of us, finally diving into a doorway.

"Hold your fire, Sara," said Sonya sharply. "It's only a hen."

"Nothing wrong with roast chicken," I said. "The fowl in the tissue culture vats has long since lost whatever flavour it had. . ."

"There wouldn't have been much left for roasting if I'd let fly with the MG," Sara told me.

It was a feeble enough joke, but we all laughed nervously.

We came to a sort of square or plaza. There was a group of statuary—once a fountain?—in the middle of it, but so overgrown that it was impossible to see if the figures had been men or monsters. They looked like monsters now. Around the plaza were ruined towers, their outlines blurred by what looked like—was, in fact—Terran ivy. Those colonists had brought a fair selection of Earth flora and Fauna with them, some of which had survived and flourished.

Grimes set the pinnace down carefully, very carefully, selecting an area that did not have any sturdy bushes and saplings thrusting up through the paving. We landed with hardly a jar. Reluctantly, it seemed, he turned off the drive. We could hear ourselves think again. This was

not the relief that it should have been. The silence, after the arhythmic snarl and thump of the motor, seemed about to be broken by . . . something. By what?

"Well," said the commodore unnecessarily, "we're here."

"You know the city," said Thorne. "Wasn't there—isn't there—some sort of temple. . ."

"I don't want to go *there* again," said Sonya determinedly.

Grimes shrugged. "It's as good a place to start our . . . investigations as any. After all, we *are* here to investigate. . .," he remarked. He turned to Mayhew. "You're the psionist, Ken. What do you think?"

The telepath seemed to jerk out of some private dream, and not a pleasant one. "The temple. . ." he murmured vaguely. "Yes. . . I remember. You told me about it. . ."

"Where is this temple?" asked Thorne.

"We shall have to walk," Grimes told him. "It's not on the plaza. It's in a little alley. . . I'm not sure that I'll be able to find it again. . ."

"I can lead you there," said Mayhew.

"You *would*!" muttered Sonya.

So the telepath was picking something up, I thought. He would home on it, as a navigator homes on a radio beacon. I was beginning to feel as the commodore's wife was obviously feeling about it. Deciding to throw in my two bits' worth I

asked, "Shall we leave somebody to guard the pinnacle?" Sara scowled at me. She was the obvious choice. She would be no more keen on going outside than any of us, but she most certainly did not want to be left alone.

"It will not be necessary, George," said Grimes. "We will, of course, notify the ship of our intentions. And Ken will maintain his telepathic hook-up with Clarisse. And, before leaving, each of us will leave his hand impression so that the outer airlock door can be locked after us. . ."

This we did. The door would now open if any of us placed either hand—or only fingertips—on the plate set in the hull beside the entrance. One by one we jumped down to the mossy paving stones. There was an unpleasant dankness in the air in spite of the sunlight, a penetrating chill. Yet, according to the thermometer that Mrs. Thorne produced from her capacious shoulder bag, it was mild enough, a fraction over twenty six degrees, too warm for the heavy, long-sleeved shirts, long trousers and stout boots that we were wearing.

Mayhew took the lead, with Grimes, projectile pistol in hand, walking beside him. Sonya and I, immediately behind, followed his example, although she favoured a laser hand gun. The Thorne's followed us. Sara, carrying a sub-machine gun, brought up the rear. The telepath led us over the broken

pavement, deviating from his course as required to avoid clumps of bushes and the occasional tree, but heading all the time to where a wide street opened off the plaza. It looked more like some fantastically fertile canyon than a manmade thoroughfare. The leaves of the omnipresent ivy glistened in the sunlight, glossy greens and a particularly poisonous looking yellow. There were other creepers too, native perhaps, or importations from other worlds than Earth, but they were fighting a losing battle against the hardy, destructive vine.

We walked slowly and cautiously into the wide street. It must have been an imposing avenue before the abandonment of the city, before burgeoning weeds blurred its perspective and obscured the clean lines of the buildings on either side of it. I tried to visualise it as it had been in its heyday—and succeeded all too well. Everything. . . flickered, flickered then shone with an unnatural clarity. I cried out in alarm as I stared at the onrushing stream of traffic into which we were so carelessly walking. A gaudy chrome and scarlet ground car was almost upon us, the fat woman driving it making no move either to swerve or to brake her vehicle. I grabbed Sonya's arm to drag her to one side, to safety. She cried out—and her sharp voice shattered the spell. Again there was the brief flickering and when normal vision returned I could see that nothing

was moving in the street save ourselves. There was no traffic, no homicidal ground car. But there was a low mound ahead of us looking like a crouching, green furred beast. Freakishly, the lenses of its headlights had not been grown over and were regarding us like a pair of baleful eyes. And had I seen the ghost of the machine, I wondered, or of its driver?

Sonya was rubbing her arm and glaring at me. The others had stopped and were staring at me curiously.

"Did you see something, George?" asked Thome.

I said slowly, "I saw this street as it must once have been, at its busiest. We were right in the middle of the traffic, about to be run down." I pointed at the derelict, almost unrecognisable car. "We were almost run down by. . . that. Or its ghost."

"The ghost of a *machine*?" demanded Thome incredulously.

His wife, looking at an instrument she had taken from her bag, said, "The graph shows a sudden dip in temperature. . ."

"But a *machine*?" repeated the scientist.

"Why not?" countered Grimes. "Life force rubs off human beings on to the machinery with which they're in the most intimate contact. Ships, especially. . . And a car is, in some ways, almost a miniature ship. . ." He turned to Mayhew. "Ken?"

The telepath replied, in a distant voice, "I . . . I feel . . . resentment . . . In its dim, mechanical way that thing loved its mistress. It was abandoned, left here to rot . . ."

"Did you see anything?" persisted Thorne.

"I saw the same as George did," admitted Mayhew. "But I knew it wasn't . . . real."

We resumed our trudge along the overgrown street. Everybody, I noticed with a certain wry satisfaction, gave the abandoned car a wide berth. We walked on, and on, trying to ignore the brambly growths that clutched at our trouser legs as though with malign intent.

"Here," announced Mayhew.

We could just make out the entrance to a side alley, completely blocked with a tall, bamboo-like growth with tangled strands of ivy filling the narrow spaces between the upright stems.

"Shall I?" asked Sonya.

"Yes," said Grimes, after a second's thought.

While Sara watched enviously the commodore's wife used her laser pistol like a machete, slashing with the almost invisible beam. There were crackling flames and billows of dense white smoke. Coughing and spluttering, with eyes watering, we backed away. I couldn't help thinking that a fire extinguisher would have been more useful than most of the other equipment we had brought along.

But only the bamboo burned; the surrounding ivy was too green to catch fire once the laser was no longer in use. At last the smoke cleared to a barely tolerable level and we were able to make our way forward. The embers were hot underfoot, nonetheless, but our boots were stout and the fabric of our trousers fireproof.

We found the church.

It was only a small building, standing apart from its taller neighbours. It was a featureless cube. Well, *almost* a cube. I got the impression that the angles were subtly, very subtly, wrong. Unlike the buildings to either side of it it was not overgrown. Its dull grey walls seemed to be of some synthetic stone. The plain rectangular door was also grey, possibly of uncorroded metal. There were no windows. Over the entrance, in black lettering, were the words, TEMPLE OF THE PRINCIPLE.

Grimes stared at the squat, ugly building. I could see from his face that he was far from happy. He muttered, "This is where we came in."

"This," Sonya corrected him, "is where we nearly went out. . ."

They had told me the story during the outward passage. I knew how they had investigated this odd temple, and found themselves thrown into an alternate existence, another plane of being on which their lives had taken altogether different courses. It had not been a

dream, they insisted. They had actually lived those lives.

"Something. . ." Mayhew was muttering. "*Something*. . . But what? *But what?*"

"And what was the principle that they. . . er. . . worshipped?" asked Thorne, matter-of-factly.

"The Uncertainty Principle. . ." said Grimes, but dubiously. "You know, the funny part is that in none of the records of the abandoned colony is there any mention of this temple, or of the religion with which it was associated."

"The worshippers must have. . . left," Sonya said, "before the other colonists were evacuated."

"But where did they go?" asked Thorne.

"Or *when*," said Mayhew. "*To when*, I mean."

Grimes filled and lit his pipe, then almost immediately knocked it out again, put it back in his pocket. He pushed the door. I was expecting it to resist his applied pressure but it opened easily, far too easily. He led the way inside the temple. The others followed. I was last, as I waited until I had raised Bindle on my personal transceiver to tell him where we were and what we doing. He—always the humorist—said, "Drop something in the plate for me, Captain!"

I was expecting darkness in the huge, windowless room, but there was light—of a sort. The grey, subtly shifting twilight was worse than blackness would have been. It ac-

centuated the. . . the *wrongness* of the angles where wall met wall, ceiling and floor. I was reminded of that eery sensation one feels in the interstellar drive room of a ship when the Mannschenn Drive is running, the dim perception of planes at right angles to all the planes of the normal Space-Time continuum. Faintly self-luminous, not quite in the middle of that uncannily lopsided hall, was what had to be the altar, a sort of ominous coffin shape. But as I stared at it its planes and angles shifted. It was, I decided, more of a cube. Or more *than* a cube. . . A tesseract?

Rose Thorne was pulling instruments out of her capacious bag. She set one of them up on spidery, telescopic legs. She peered at the dial on top of it. "Fluctuations," she murmured, "slight, but definite. . ." She said in a louder voice, "There's something *odd* about the gravitational field of this place. . ."

"Gravity waves?" asked her husband.

She laughed briefly. "Ripples rather than waves. Undetectable by any normal gravitometer."

Thorne turned to Grimes. "Did you notice any phenomena like this when you were here before, John?"

"We didn't have any instruments with us," the commodore told him shortly.

"And what do *you* feel Ken?" the scientist asked Mayhew.

But the telepath did not reply.

Looking at him, the way that he was standing there, his gaze somehow turned inward, I was reminded of the uneasy sensation you get when a dog sees something—or seems to see something—that is invisible to you. “Old. . .” he whispered. “Old. . . From the time before this, and from the time before that, and the time before and the time before. . . The planet alive, alive and aware, a sentient world. . . Surviving every death and rebirth of the universe. . . Surviving beyond the continuum. . .”

It didn’t make sense, I thought. It didn’t make sense.

Or did it?

His lips moved again, but his voice was barely audible. “Communion. . . Yes. Communion. . .”

He took a step, and then another, and another, like a sleepwalker. He paced slowly and deliberately up to—into—the dimly glowing tesseract. He seemed to flicker. The outline of his body wavered, wavered and faded. Then, quite suddenly, he was gone.

The metallic click as Sara cocked her sub-machine gun was startlingly loud. I still don’t know what she thought that she was going to shoot at. I did know that in this situation all our weapons were utterly useless.

“We have to get Clarisse here,” said Grimes at last. “She’s the only one of us who’ll be able to do anything.” He added, in a whisper, “If anything can be done, that is. . .”



WE HAD TO GO outside the temple before we could use our personal transceivers. Clarisse was already calling; she *knew*, of course. She was already in *Basset's* second boat, which was being piloted by young Taylor. Grimes told him to try to land in the street just by the mouth of the alley. There were more obstructions there than where we had set down, in the square, but speed was the prime consideration. I walked, accompanied by Sara, to the proposed landing site, my transceiver set for continuous beacon-transmission so that Taylor could home on it.

We heard the boat—the inertial drive is not famous for quiet running—before we saw it. Taylor came in low over the rooftops, wasting no time. He slammed the lifecraft down to the road surface, crushing a couple of well-developed bushes and knocking a stout sapling sideways. I shuddered. I didn't like to see ship's equipment—especially my ship's equipment—handled that way. The door midway along the torpedo-shaped hull snapped open. Clarisse jumped out.

She brushed past us, unspeaking, ran into the alley, clouds of fine ash exploding about her ankles. Sara and I followed her. Clarisse hesitated briefly at the temple doorway, exchanging a few words with Grimes and Sonya, then hurried inside. When the rest of us joined her we found her standing by the altar, motionless, her face set and expres-

sionless. In the dim light she looked like a priestess of some ancient religion.

Then she spoke, but not to any of us.

"Ken," she whispered, obviously vocalising her thoughts. "Ken. . ." She smiled suddenly. She was getting through. "Yes. . . Here I am. . ."

"Where is he?" demanded Grimes urgently.

She ignored the question. Suddenly, walking as Mayhew had walked, she stepped into that luminous shape, that distorted geometrical, multi-dimensional diagram. We saw the outline of her body through her clothing, her shadowy bone structure through her translucent flesh, and. . .

Nothing.

Thorne broke the stunned silence. "Did you observe the meter while all this was happening?" he asked his wife.

You cold blooded bastard! I thought angrily, then realised that the scientists' instruments might provide some clue as to what had happened.

"No," she admitted, then stooped over the gravimeter, pressed a button. "But here's the print-out."

We could all see the graph as she showed it to him. There were the slight, very slight irregularities that she had referred to as gravitational ripples. And there were two sharp and very definite dips. The first one

must have registered when Mayhew disappeared, the second when Clarisse vanished.

So *It*, whatever *It* was, played around with gravity. A sentient planet, I reflected, ought to be able to do just that. . .

"Rose," said Grimes, "watch your gravitometer, will you?"

She shot him a puzzled look, but obeyed. The commodore brought something small out of his pocket. It was, I saw, a box of matches. He tossed it towards the tesseract. Nobody was surprised when it, too, vanished.

"The field intensified," reported the woman. "Briefly, slightly, but very definitely."

"So. . ." murmured Grimes. "So what?" He turned to face us all. "We must get Ken and Clarisse out. But how?"

Nobody answered him.

Having waited in vain for a reply he continued. "Twice, while on this blasted planet, I've been shunted . . . elsewhere. Each time I got back. I still don't know how. But if I could, they can." He gestured towards the altar. "That thing's a gateway. A gateway to where—or when?" He addressed me directly. "You've an engineroom gantry aboard your ship, George. And there are drilling and cutting tools in the engineers' workshop."

"Yes," I told him.

"I'd like them here. Mphm. But there'll be only a few metres of wire on your gantry winches. We

could want more, much more. . ."

I remembered, then, something which had been a source of puzzlement to me for a long time. "In the storeroom," I told him, "are two funny little hand winches, with reels of very fine wire. There's a lot of wire. Nobody knows what those winches are for. But. . ."

"But they might come in handy now," said Grimes, suddenly and inexplicably cheerful. "I think I know what those winches are—although what they're doing aboard a merchant spaceship is a mystery. In the Survey Service, of course, we had things like them, for oceanographical work. . ."

"Your're losing me, sir," I said.

"I could be wrong, of course," he went on, "but I've a hunch that these will be just the things we need. I'd like one of them out here at once. The other one, I think, could be modified slightly. Your engineers can study the simple workings of it, and then fit it with a motor from your gantry. . ."

I suppose that he knew what he was talking about. Nobody else did.

We went outside the temple to use our transceivers to get in touch with Bindle, back aboard the ship. Grimes put him in the picture and then gave him detailed instructions. As well as the first of the odd little hand winches and the cutting tools he wanted a sound-powered telephone, with as much wire as could be found.

Then the commodore and myself

went to the mouth of the alley to await the return of Taylor with the first installment of equipment. The boat came in at last and we boarded it at once and were promptly carried to the flat roof of the building. Under my watchful eye the Third Officer made a very cautious landing—but that rooftop, by the feel of it, could have supported the enormous weight of an Alpha Class liner. We unloaded the tools and the reel of wire, then Taylor lifted off and returned to the ship.

Grimes looked at the wire reel and laughed. He said, "And you really don't know what this is, George?"

"No," I told him.

"Was your ship ever on Atlantia?"

"A few times, I think, but never when I was in her."

"And one of those times—probably the last time—she overcarried cargo," went on Grimes. "And the good, Dog Star Line Mate buried those left-over bones in the back garden, thinking that they might come in handy for something, some time. This is a sounding machine, such as the Atlanteans use in their big schooners, and such as we, in the Survey Service, use for charting the seas of a newly discovered world. But our machines have motors."

"I thought that all sounding was done electronically," I said.

"Most of it is," the commodore told me, "but an echometer can't bring up a sample of the bottom. . .

Yes, this is a sounding machine. Armstrong Patent."

"Is that the make of it?"

Grimes laughed again, obviously amused by my ignorance. I rather resented this. It was all very well for him; he was one of *the* experts, if not *the* expert, on Terran maritime history. And not only did he hold a Master Mariner's Certificate in addition to his qualifications as a Master Astronaut—he had actually sailed in command of a surface vessel on that watery world Aquarius.

"Armstrong Patent," he said, "is the nickname given by seamen to any piece of machinery powered by human muscle. And they're a weird mob, the Atlanteans, as you may know. They have a horror of automation even in its simple forms. They pride themselves on having put the clock back to the good old days of wooden ships and iron men. But they do import some manufactured goods—such as this." He looked at the dial set horizontally on top of the winch. "And there's two hundred fathoms of piano wire here. That's about three hundred and sixty five metres." He pulled a cylinder of heavy metal from its clip on the winch frame. "And here's the sinker. About ten kilograms of lead, by the feel of it."

"Oh, I see," I admitted. (Well, I did, after a fashion.)

"Mphm." Grimes was studying the legs on which the machine stood, the feet of which were de-

signed so that they could be bolted to a deck. "Mphm. . ." He straightened up, then walked to the edge of the flat roof. I followed him. There was no parapet. I stayed well back; I don't suffer from acrophobia—I'd hardly be a spaceman if I did—but I always like to have something to hold on to. And it looked a long way down. The temple hadn't looked all that high from the ground, but in its vicinity perspective seemed to be following a new set of rules.

Grimes was shouting down to his wife after a futile attempt to use his personal transceiver. Apparently the inhibitory field was as effective on the roof as inside the building. "Sonya, we want some timber. Yes, timber! Two good, strong logs, straight, each at least two metres long and fifteen centimetres thick. . . Yes, use your laser to cut them!"

When she had gone, accompanied by the others, he determined the centre of the flat roof by pacing out the diagonals. Where these intersected he put down his precious pipe as a marker. I brought him the laser cutter—one with a self contained power pack. He held it like the oversized pistol that it resembled, directing the thin pencil of incandescence almost directly downward.

At first it seemed the surface of the roof was going to be impossible to cut; the beam flattened weirdly at the point of impact, spreading to a tiny puddle of intense light, dazzl-

ingly bright even though it was in the full rays of the sun. And then, quite suddenly, without any pyrotechnics, without so much as a wisp of smoke, there was penetration.

After that it was easy. Grimes described a circle of about one metre diameter but left a thirty degree arc uncut. He switched off and put down the cutter, then retrieved his pipe. When it was safely back in his pocket he extended a cautious fingertip to the cut in the roof. He looked puzzled. "Cold, stone cold," he whispered. "It shouldn't be. But it saves time."

I fetched the pinch bar and we got one end of it under the partially excised circle, then levered upwards. It came fairly easily, and did not spring back when the pressure was released. I took a firm hold on the smooth edge and held it while Grimes completed the cut.

When the disc was free it was amazingly light, even though it was all of four centimeters thick. I put it to one side and we looked down.

The altar—I may as well go on calling it that, although I was sure by now that it had no religious significance—was almost directly below us. Its alien geometry glimmered wanly. I'd been expecting, somehow, to find myself looking down into a hole, a very deep hole, but such was not the case. It was just as we had seen it from ground level, a distorted construct of slowly shifting planes of dim radiance. But

we knew that if we fell into it we should keep on going.

Somebody was calling. It was Sonya, back from her wood-cutting expedition. We went to the edge of the roof. She and Sara were carrying one suitable looking log between them, the Thornes another. She shouted, "How do we get these up to you?"

Grimes did something to the winch handles of the sounding machine so that the wire ran off easily. He pulled as much as he needed off the reel, lowered the end of it over the edge of the roof to the ground. Sonya threw it around the first of the logs in a simple yet secure hitch. We pulled it up. It wasn't all that heavy, but the thin wire bit painfully into the palms of our hands. Then we brought up the second one.

We used the laser cutter to trim the logs to square section, adjusting the beam setting carefully before starting work. We didn't want to cut the roof from under our feet. Then we arranged the two baulks of timber so that they bridged the circular hole. We lifted the sounding machine and set so that it rested securely on the rough platform. Grimes shackled the heavy sinker to the end of the wire, left it dangling. "Mphm. . ." he grunted dubiously. He had found, clipped inside the frame of the winch, a small L shaped rod of metal on a wooden handle. He asked, "Do you know how this works?"

I didn't. I'm a spaceman, not a seaman.

"This," he told me, "is the feeler. Normally there's a good lead from the sounding machine so that the wire runs horizontally from the reel to a block on the taffrail or on the end of the sounding boom. Whoever's working it holds the feeler in one hand, pressing down on the wire—and he knows when the sinker has hit bottom by the sudden slackening of tension. Then he brakes. Obviously we can't do that here. So you, George, will have to exercise a lateral pull with the feeler. Yell out as soon as you feel the wire go slack."

We took our positions, myself crouching and holding the feeler ready, he grasping both winch handles. He gave them a sharp half turn forward and the sinker dropped, and the wire sang off the drum. It was plain that we hadn't found bottom on the floor of the temple. Out ran the gleaming wire, out, out. . . I heard Grimes mutter, "Fifty. . . One hundred. . . One fifty. . ." And what would happen when we came to the end of the wire?

It went slack suddenly. "Now!" I shouted as I went over backwards. Somehow I was still watching Grimes and saw him sharply turn the handles in reverse, braking the winch. When I scrambled to my feet he was looking at the dial. "One hundred and seventy three fathoms," he said slowly. "One hundred and seventy three fathoms,

straight down. . .” He grinned ruefully. “That was the easy part. Gravity was doing all the work. The hard part comes now!”

I didn’t know what he meant until we had to wind up all that length of wire by hand. We waited a little while, hoping that Mayhew and Clarisse would be able to attach a message of some kind to the sinker, and then we took a handle each and turned and turned and turned. The pointer moved anti-clockwise on the dial with agonizing slowness. We had both of us worked up a fine sweat and acquired blisters on the palms of our hands when, at long last, the plummet lifted slowly through the hole in the roof. There was more than just the sinker attached to the wire. There was a square of scarlet synthesilk that, I remembered, Clarisse had worn as a neckerchief at the throat of her khaki shirt. And knotted into it was the box of matches that Grimes had dropped into the altar.

There was something wrong with it. It took me a little time to realise what it was—and then I saw that in order to read the brand name—PROMETHEUS—one would require a mirror.

THE THORNES had a pad and a stylus among their equipment. We used the sounding machine wire to bring these up to the roof, then attached them to the sinker and sent them down to wherever Mayhew and Clarisse were trapped. This

time Grimes applied the brake when he had one hundred and sixty fathoms of wire down and walked out the rest by hand. Then we waited, Grimes smoking a pipe—his matches still worked in spite of the odd reversal—and myself a cigar. This would give the psionics time to write their message and, in any case, we felt that we had earned a smoko.

We thought of asking Sonya to use the boat that we had left in the plaza to bring others of the party up to the roof to lend us a hand, then decided that, for the time being, it was better to have them standing by on the ground. To begin with, there was the problem of radio communication with the ship to be considered.

Our rest period over, we sweated again on what the commodore had so aptly called the Armstrong Patent machine. At last the sinker rose into view. Attached to it was a sheet torn from the pad. Grimes detached it carefully but eagerly, then grunted. Mayhew’s handwriting, at the best of times, was barely legible, and a mirror image of his vile calligraphy was impossible. And nobody had a mirror. I suggested that Grimes hold the sheet of plastic up against the sunlight. He did so, then muttered irritably, “Damn the man! If he can’t write, he should print!”

Squinting against the glare I looked over Grimes’ shoulder. At least, I thought, we should be thankful for small mercies; Mayhew

had written on only one side of the sheet. I could just make out: *Safe, so far, but no communication. It—the "it" was heavily underlined—will receive but not transmit. I can't get inside its mind. It wants to know about us but does not want us to know about it. It's draining us. Can you get us out?*

(It took us far longer to read the message than it has taken you.)

"This piano-wire is strong," Grimes told me. "The weight of a human being is well below its safe working load, let alone its breaking strain. But I don't fancy winching Ken or Clarisse—Clarisse especially—up by hand."

I was inclined to agree.

Grimes wrote a short note to Mayhew, using the reverse side of the sheet on which the telepath's message had been penned. He printed in large block capitals, **HELP BEING ORGANIZED. GRIMES.** We sent it down attached to the sinker.

And then Taylor appeared with additional equipment, bringing the boat down to a landing almost at the edge of the roof. Also with him were Thorne's assistants—Trentham, Smith, Susan Howard and Mary Lestrangle. The mousey quartet showed signs of pleasurable excitement. A few turns on the hand winch, I thought sourly, would wipe the silly grins off their faces. Betty was with them. She had brought a sound-powered telephone set, a large reel of light cable

and a tape recorder. And there was the second sounding machine, to which a motor from the engineroom gantry had been attached. Porky Terrigal, the Reaction Drive Engineer, had come along with it to make sure that nobody mis-used his precious machinery. There were also thermo-containers of hot and cold drinks and boxes of sandwiches, a couple of coils of strong plastic line that Bindle had sent along thinking that they might come in useful (they did) and a spidery looking folding ladder that would give us access from the roof to the ground, and vice versa.

The boat had to stay in position, as the power to the sounding machine winch would be fed from its fusion unit. Luckily the rooftop was wide enough to accommodate all the extra people and gear without crowding. Sonya and Sara came up to join the party, leaving the Thornes standing watch below.

Grimes turned the four young scientists to on the hand winch. By the time they got the sinker up to roof level they had lost their initial enthusiasm. The message was easier to read this time. To begin with, Mayhew had taken the hint and printed the words and, secondly, Susan Lestrangle produced a small mirror from her shoulder bag. It said: **WOULD LIKE A LITTLE MORE TIME. CAN YOU SEND TELEPHONE? KEN.**

We sent the telephone, and with it some food and drink. Betty

hooked an amplifier up to the instrument at our end of the line. We waited anxiously, far from sure that things would work. What if what had been happening to the written word also happened to the spoken word? Then, after what seemed an eternity of delay, we heard Mayhew's voice. "Thanks for the tucker, John! It's very welcome. All the others seem to have died of thirst and starvation. . ."

"What others?" asked Grimes.

"Clarisse here," came the reply. "Ken can't talk with his mouth full. We're safe, so far. But I'll try to put you in the picture. It feels like a huge control room, like a ship's, but much, much bigger. Only there are no controls as we know them, no banks of familiar instruments. . . This is a great, cavernous space with lights shifting and pulsing. . . We *know* that it all means something, that it isn't mere, random activity, but what? But *what*? Maintaining stasis over uncountable millennia. . . Staying put in Time and Space while the Universe around it dies and is reborn. . ." A note of hysteria crept into her voice. "*It. . . It* has sucked us dry, of all we know, even of knowledge that we did not dream that we owned.

And now *It* isn't interested in us any more. We can take our places with the. . . others. . ."

"What others?" demanded Grimes.

Mayhew came back on the line. "There are bodies here. Not de-

cayed but. . . dessicated. Sort of mummified. Some human. Some. . . not. There's. . . something not far from us with an exo-skeleton. Something not from *this* Universe. And there are two things like centaurs. . . The arthropod thing is holding a machine of some kind. . . It could be a complicated weapon. . . And there's all the time the slow, regular pulse of the coloured lights washing over everything, and there's something that's like a gigantic pendulum, but not of metal, but of radiance. . . I can *feel* it rather than see it. . ." He paused. "It's like being a tiny insect in the works of some vast clock, only the wheels and the gears and the pendulum aren't material. . ."

Clarisse cried, interrupting, "But can you imagine a clock ticking backwards?"

Thorne had climbed up the rooftop. He said, "I heard all that. We must try to bring up some. . . specimens."

"All that I'm concerned with," Grimes told him, "is bringing our friends up."

"It would be criminal," said the scientist, "to miss this opportunity."

"It will be criminal," said Grimes, "to risk two lives any further. How do we know that the. . . gateway will stay open? No; we get Clarisse and Ken out of there *now*."

The wire of the hand-powered sounding machine had been reeled

in by this time and, under Grimes' supervision, the one with the electric motor was set up in its place. To the sinker the commodore attached one of the coils of light plastic rope. He said into the telephone, "You remember that book of mine you borrowed on bends and hitches and knots and splices, Ken? You should be able to throw a secure bowline on the bight with the line I'm sending down to you. . . Yes, you sit in it. . ."

"But can't he send up something, *anything*, first?" pleaded Thorne.

"No, Doctor." Grimes was adamant.

"I overheard some of that," came Mayhew's voice. "I think we should. That lobster thing, and the contraption it's holding in its claws. . . I could carry it up with me. . ."

"Mayhew is speaking sense," commented the scientist.

There was a long wait. Then, "It's heavy," came the voice from the speaker. "Damned heavy. We can't shift it. . ."

"Then leave it," Grimes ordered. "The sinker and the plastic line are on their way down to you now. I'm using the electrically powered machine, so I'll have you and Clarisse up in no time."

"You have *two* machines?" asked Mayhew.

"Yes. Why?"

"I'll send Clarisse up first. Send the wire down again, and I'll have made a sling with what's left of the

line and put it round the. . . *thing*. Then you bring *me* up with the hand-powered winch, and you can use the stronger one to lift the specimen. . ."

"Well?" demanded Thorne.

"All right," Grimes agreed reluctantly.

It took no time at all to extricate Clarisse. Grimes had sent Taylor down to the temple, accompanied by the two girl scientists, to pull her clear of the altar and then down to the floor as soon as she emerged. She joined us on the roof. I looked at her and tried to remember on which of her cheekbones that beauty spot had been. . .

We sent the wire down again. Mayhew telephoned that he had the end of it, was making it fast to the sling that he had managed to get around the body of the weird alien. We then shifted the electric winch to one side, replacing it with the hand-powered one. Grimes was worried that the two sounding wires might become entangled, but the sinker dropped with the same speed that it had done on the prior occasions.

Mayhew said that he was seated in the bowline and ready to come up. Trentham and Smith manned the winch handles. It was brutally hard work; the winch was not geared. After a while Grimes and I had to spell them. And then Thorne and Terrigal took a turn. Mayhew was bringing his end of the telephone up with him and was keeping us in-

formed. "Like swimming up through a sort of grey fog. . ." he said. "I'm putting my hand out, but there's nothing solid. . . I can see the other wire. . . I can touch *that*, but it's all that I can touch. . . Looking up, I can see a sort of distorted square of white light. . . It's a long way off. . ."

Yes, it was a long way. A long way for him, and a bloody long way for those of us who were doing all the work. I hoped that Dr. Thorne was enjoying his turn at the winch; it had been his idea that a specimen be brought up. If he hadn't insisted Mayhew would have been whisked to safety with the same speed as Clarisse.

We heard Taylor's shout from below at last, just as Mayhew himself reported that he was being lifted into the temple. We came back on the winch after the Third Mate had caught his swinging feet and was lowering him safely to the floor. Once he was out of his harness he came up the ladder to join us on the rooftop.

Now that the operation was almost over I realized, suddenly, how time had flown. It was almost sunset, and a chill breeze was blowing from the east. In a matter of minutes it would be dark. Kinsolving has no moon and here, on the Rim, there would be precious little starlight.

Grimes said, "I think we should defer any further operations until tomorrow morning."

Thorne said, "But there are lights in the boat. A searchlight. . ."

Mayhew said, "John, do we *want* that. . . thing? I've a feeling that the gateway may be closing again, at any second."

"Oh, all right," said Grimes resignedly. He turned to me, "Let's get the electric winch back on to the platform."

We did so. Then he told me, "It's your equipment, George, operated by your personnel. Over to you."

I thought, *You buck-passing old bastard!* But what he had said made sense. I gestured to Terrigal at the winch controls, made the Heave Away! signal. The piano wire tightened. I looked over Terrigal's shoulder and could see the pointer on the dial begin to move. I visualised that bundle of—something—being dragged across the floor of the. . .Cavern? Control room? The winch hadn't got the weight yet.

Then it took the strain and almost coincidentally the sun set. The light breeze was chillier still and there was almost no twilight. Somebody switched on the lights in the boat, including the searchlight, which flooded the rooftop with a harsh, white radiance. The winch groaned. Terrigal complained, "I can't be held responsible for any damage to the machinery. . ."

"Keep her coming!" I told him. I was more concerned about the baulks of timber upon which the

sounding machine was resting than with the machine itself. But engineers, in my experience, always tend to be slaves to rather than masters of their engines.

There was an acrid taint in the air from overheated metal and insulation and the wire, a filament of incandescent silver in the searchlight beam, was beginning to sing. But the pointer on the dial was moving—slowly, slowly, but moving.

I asked, "Can't you go any faster?"

"No, Captain. I'm on the last notch now. And I don't like it."

"Better get people cleared away from here, George," Grimes told me. "If that wire parts it's going to spring back. . ."

"And what about *me*?" demanded Terrigal.

"If you're scared. . ." I began.

"Yes, I am scared!" he growled. "And so would you be if you had any bloody sense. But I wouldn't trust any of you on this winch!"

All right, all right—I *was* scared. And it was more than a fear of a lethally lashing end of broken wire. It was that primordial dread of the unknown that has afflicted Man from his first beginnings, that afflicts, too, the lower orders of the animal kingdom. The darkness around the brilliantly lit rooftop was alive with shifting, whispering shadows. Most of our party, I noticed, had already taken refuge in the boat, a little cave of light and

warmth that offered shelter, probably illusory, from the Ultimate Night that seemed to be closing around us. Only Grimes, Sonya, Sara and myself remained in the open—and, of course, Terrigal at the winch controls.

The winch was making an eery whining noise. The smell of hot metal and scorching insulation was much stronger. And the wire itself was keening—and was. . . stretching. Surely it was stretching. Surely that shining filament was now so thin as to be almost invisible.

"Enough!" ordered Grimes. "Avast heaving!"

The engineer brought the control handle round anti-clockwise, but it had no effect. He cried, "She won't stop!"

"Mr. Taylor!" shouted Grimes into the boat, "switch off the power to the winch!"

"The switch is jammed!" came the reply.

"She won't stop! She won't stop!" yelled Terrigal, frantically jiggling his controls.

The light was dimming, sagging down the spectrum, and outlines were wavering, and frightened voices sounded as though they were coming from an echo chamber. The thin high keening of the overtaut wire was above and below and through all other noises. Sonya and Sara were wrestling with the power cable, tugging at it, worrying it like two dogs fighting over a bone, trying to drag it out of its socket in the

boat's hull. It resisted all their efforts.

"Let's get out of here!" snapped Grimes. "Into the boat, all of you!"

Terrigal abandoned his winch, but not before aiming a vicious kick at the control box. He scurried into the little airlock. The two women followed. Grimes and I made it to the door in a dead heat; he pushed me inside then followed hard after me. As soon as we were all in, Taylor, forward at the controls, slammed the inertial drive into maximum lift, not bothering to close the airlock doors first. We started to rise, then stopped with a jerk, heeling alarmingly to port. The power cable to the winch was holding us down. But it would soon part, I thought. It must part. It was only a power cable, not a heavy-duty mooring wire.

It didn't part. It . . . stretched. It shouldn't have done, but it did. And we lifted again, slowly, with the inertial drive hammering like a mechanical riveter gone mad. I clung to the frame of the open door and looked down. I saw the sounding machine dragged up and clear from the circular hole in the roof, with the shining filament of wire still extending straight downwards.

Terrifyingly the city around the temple was coming to life—but it wasn't the city that we had explored. The human colonists had laid out their streets in a rectangular plan; these streets were concentric

circles connected by radial thoroughfares. And there were the tall, cylindrical towers, agleam with lights, each topped with a shining sphere. Unsubstantial they seemed at first, but as I watched they appeared to acquire solidity.

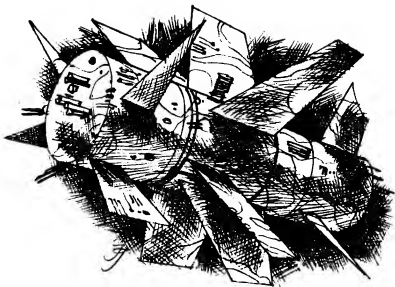
Grimes saw it too. He shouted to Taylor, to Terrigal, to anybody who was close enough to the fusion generator to do something about it, "You have to cut the power to the winch! We're dredging up the Past—and we shall be in it!"

"Just show me how, Commo-dore!" cried the engineer. "Just show me how! I've done all that I can do—short of stopping the jenny!"

And if he did stop the generator we should fall like a stone. *If* he could stop it, that is.

An aircraft came slowly into view, circling us warily. It was huge, a cylindrical hull, rounded at the ends, with vanes sticking out at all sorts of odd angles. It was like nothing that I had ever seen and possessed a nightmarishly alien quality. There were tubes protruding from turrets that could have been, that almost certainly were guns, and they were trained upon us. What if the alien commander—I visualized him, or *it*, as being of the same species as the lobsterlike being whose body we had been attempting to recover—should open fire? What would happen to us?

Nothing pleasant, that was for sure.



But we had weapons of our own; we could, at least, defend ourselves if attacked. Sara, I was sure, would enjoy being able to play with her toys. And Sara, I suddenly realized, was beside me in the cramped little airlock, holding her sub-machine gun. I said to her, "What use do you think that will be? What's wrong with the heavy armament?"

She replied obscurely, "I can't bring it to bear." I couldn't see why she couldn't. That blasted flying battleship was staying well within the arcs-of-fire of the laser cannon and the heavy machine gun, and a guided missile would home on her no matter where she was relative to us.

Sara opened fire. Bright tracer

flashed out from the muzzle of the gun, but not towards the huge flying ship. It may have been the first round of the burst that hit the power cable, certainly it was one in the first half dozen. There was an arcing sputter of blue flame and the boat, released from its tether, went up like a bat out of hell.

And below us the weird city out of Time flickered and vanished.

I TURNED TO GRIMES. "You said, sir, that the things that happen on Kinsolving's Planet shouldn't happen to a dog. And they shouldn't happen, either, to respectable employees of the Dog Star Line."

He managed a grin, then went, "Arf, arf!"

★



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A STEP FARTHER OUT

UFO'S AND BIG SCIENCE

SCIENCE FICTION PEOPLE, fans and professionals alike, tend to avoid the subject of "flying saucers." After all, we're much more scientific than *that*!

I recall the first SF club meeting I ever attended. It was in Seattle, and the group was called The Nameless Ones. (They had a nasty habit of electing newcomers President at their first meeting, but that's another story.) For some reason a reporter showed up, and the first question she asked was about "flying saucers." The Nameless rather gruffly told her we weren't interested and never would be.

The reaction was probably justified. After all, we were those nutty people who wanted to go to the Moon, and in the 50's that was far out enough. How could we claim space travel was respectable if we were also saddled with flying saucers?

SF people have always tended to shy away from UFO's, and I've

been no exception; but last January the staid and stolid American Institute of Aeronautics and Astronautics included a panel on UFO's in their 13th Annual Aerospace Sciences meeting. If the inheritors of the professional American Rocket Society (that's what I joined, and by golly I'll wear my little red rocket—the devil with the merger that wiped out ARS!) can discuss UFO's in the normal language of dull science, maybe we SF dreamers ought to at least think about them.

What really got me onto the subject, though, was the publisher of the newspaper chain I write science columns for. He wanted a feature on UFO's. I took the assignment with a certain degree of apprehension.

In my previous experiences, UFO enthusiasts were invariably wild-eyed, generally insisted that I look at smudgy, ambiguous photos, and often revealed that the US Air Force was engaged in a conspiracy to

suppress all knowledge about UFO's. They told horror stories about Project Blue Book. They solemnly related that the US Government had constructed a secret laboratory in the Mojave, and seduced a famous UFO investigator into thinking it was an extra-terrestrial space ship so that later they could embarrass him.

I had been told of hundreds of excellent photographs seized by USAF Blue Book officers, taken away and never to be returned despite vigorous legal efforts to recover them—but somehow had never been given the name of the lawyer who filed the suit, the court in which it had been filed, or the judge who heard it.

I also remembered a couple of USAF captains with whom I'd worked closely when I was in the space program, and their stories about Blue Book. Blue Book was a "George" job (there's nobody to do it? Give it to George.) that one would start off conscientiously enough, but soon learn to despise as the silly and inconsistent stories poured in.

However, an assignment is an assignment, and I dutifully looked up and interviewed as many UFO experts as I could find.

The field turns out to be more interesting, and far more respectable, than I would have thought. Now that the research is done and paid for, and the subject's fresh in my mind, and Jim has just called to ask

where's the July column—why I guess I'll just have to write about UFO's.

I NTEREST IN AND STUDY OF Unidentified Flying Objects—UFO's—is no longer confined to fanatics and eccentrics, if indeed it ever was. I don't mean to imply contempt for *all* the early investigators, or for the amateur outfits like MUFON who collect the bulk of the data on the subject. However, professional scientists have now moved into the field.

The Dean of UFO scientists is Dr. J. Allen Hynek, Chairman of the Department of Astronomy at Northwestern, and Director of the Center for UFO Studies (The Center, Box 11, Northfield, Illinois, 60093, is a tax deductible foundation supported entirely by gifts. It does not accept members and is not a "UFO Club", but a \$10.00 donation will get you a newsletter subscription and a lot of thanks.)

The consultant list for the Center includes such notables as Dr. Claude Poher, one of the Directors of the French equivalent of NASA, at least one Nobel Laureate, and any number of random Ph.D.'s in various sciences. Dr. Hynek himself looks like a very conservative astronomer, which in fact he is. He was originally hired by USAF as a UFO consultant, and began with the opinion that UFO reports were nonsense to be explained away. Unlike some others, notably the late Dr.

Edmund Condon of Colorado U., Hynek didn't keep that view.

He now hopes that some progress on UFO research may be made during his lifetime, and views his Center as his scientific legacy. His book, *THE UFO EXPERIENCE*, is still the best general work on the subject. One sign of the increasing respectability of UFO studies is that Hynek's book was favorably reviewed by planetologist Bruce Murray in the AAAS journal, *SCIENCE*. (Not that Murray is a UFO enthusiast; far from it; but he took the trouble to examine the subject before writing a review. Alas, such courtesy seems even more rare in the scientific professions than among writers.)

Hynek's Center is now tied in with many law enforcement agencies and maintains a toll-free number available to police; officers across the country can report UFO sightings and get advice on disposition of UFO cases. This came about largely because the FBI published a long article on UFO's in the Feb. 1975 issue of the *FBI Bulletin*. As Hynek says, that's practically "the Good Housekeeping Seal of Approval."

ALL RIGHT. UFO research is respectable, if not orthodox. Now what the devil are UFO's?

No one knows. There are plenty of speculations, but very little evidence. We'll go into some speculations in a moment, but first let's see

what we're discussing.

First, we can say what UFO's probably are not: namely, they are not misinterpretations of "usual" or "ordinary" phenomena. There are plenty of such, of course, but by definition if we can *identify* the cause, we don't have a UFO.

Incidentally, this is the major failure of the Air Force-financed Condon Report. Condon never investigated a single case, and chose to concentrate nearly all his efforts on known mistakes and misidentifications.

In fact, Condon even sought out people like the "man from Galaxy Three" who wanted \$100,000 "to build runways on orders from Galaxy Control." Condon's administrator even put out a memo stating that the purpose of the study was to explain away UFO's—but to make it appear that a scientific investigation had been carried out.

There was great concern that the staff would be laughed at by orthodox scientists, and great efforts were made to show that no one in the study really took it seriously.

Thus the Condon study never did do what the taxpayers put up their money for, namely, investigate *unidentified* flying objects. It does a pretty good job of showing the kinds of mistakes that have been made, but as a scientific study it is valueless. On the other hand, it probably served its major purpose, to get UFO's out of the Air Force's hair. (USAF had for years tried to

give UFO studies to *someone*: NSF, the Weather Bureau, Air Defense Command (Army), National Academy of Sciences, anyone who'd take it, budget and all.)

Yet when we've got rid of the kooks and cranks, mercenaries and swamp gas and meteorological balloons, the planet Venus, helicopters, and hoaxes, there remain cases that we cannot explain. Hundreds of them, including nearly a hundred reported by multiple witnesses of presumed honesty and integrity.

The USAF Assistant Chief of Staff, Intelligence, said back in 1947 that "credible observers are reporting incredible things." Nearly 30 years later that's a good summary. The observers are credible by any test. The reports defy belief.

I want to emphasize something: we have convicted people of murder on far less evidence than we have for the existence of "incredible" UFO's. Our legal system routinely tries to sort out fact from fancy, and to examine such intangibles as "honesty and integrity." However well it works or doesn't work, courts regularly try cases on flimsier evidence than we have in the UFO reports, and hear witnesses far less credible than those Hynek has singled out for his studies.

If you were on a jury you'd be likely to believe the people Hynek has interviewed. He excludes almost all of the famous UFO "investigators" who grow wealthy from their UFO tales.

Hynek's classification scheme is as good as any. He sorts UFO reports into the following categories: Daylight Discs, Nocturnal Lights, Radar-Visual, and Close Encounters of the First, Second, and Third Kinds.

The first two are simple enough. They also exhibit a number of similarities: rapid to enormous velocities and accelerations, no sonic boom despite high velocity, etc. Radar-visuals are those reported by both kinds of observation on the same phenomenon, usually by highly professional personnel such as USAF radarmen, professional air traffic controllers, etc.

So far so good. Were these three the whole of it, we could comfort ourselves with the thought that there's probably an explanation well within the limits of present-day science. Unfortunately they are not the whole of it.

The Close Encounters are disturbing, but there's a lot of reliable evidence for them: reliable, that is, in that the observers would be believed if they told nearly any other story. Close Encounters of the First Kind involve observations at ranges of 20 to 500 feet, close enough to see details.

Close Encounters of the Second Kind involve some physical effect on the observers or their surroundings: interference with auto ignition (a common report); movement of trees, as was photographed in the famous Oregon disc; or, sometimes,

thermal and physiological effects.

Close Encounters of the Third Kind involve living creatures generally humanoid. If we have trouble swallowing the first two encounters, this one really makes us want to gag; yet, again, the reports are about as good as those given in criminal courts, or sent out by war correspondents, or indeed, for most of us, for the existence of any other complex phenomena we haven't ourselves seen.

Beyond this point Hynek and most UFO scientists draw the line. There are reports of actual communication with UFO's, many given by people who *seem* to be telling the truth, but first there are few such, and secondly, those making them nearly always manifest some kind of psychological aberration. We can note that the experience itself might be enough to unhinge most of us, and still confine our work to the three kinds of close encounters, the discs, the night lights, and the radar-visuals.

OK. THAT'S THE SUBJECT matter. Reports, sometimes accompanied by photographs, sometimes not. There aren't a lot of photographs, and of those not many have been or can be checked and pronounced unmistakably genuine; *but there are some*. (There are others which *may* be genuine, but can't be proved to be; it's those unmistakably genuine ones that are disturbing.)

Now what do we mean by

genuine? Well, among other things, there must be a negative, so that photo experts can be certain this isn't either a double exposure or some kind of fakery from the printing lab; in other words that there's a real object recorded on the film.

Next, they want to see other objects besides the UFO: trees, houses, wheat fields, etc., so that the distance to the UFO, and thus its size, can be established. This generally takes care of thrown objects and the like. The experts are even happier with a series of photographs, because they can take the sun angle off each one, and again eliminate a lot of thrown or suspended objects.

I won't go into all the tests because I'm not a photo expert. But I did conduct a long interview with Adrian Vance of POPULAR PHOTOGRAPHY Magazine, and also with some USAF professionals, and I'm now convinced: there exist several photographs of genuine objects, taken at distances of some 50 to 500 feet. The objects are in flight. They tend to be circular, and of dimension about 30 feet diameter by 7 feet at the thickest point. At least one (the Oregon "saucer") created enough wind to affect large trees.

I find it hard to believe that's a thrown or suspended object. Moreover, in several unrelated cases of photographed discs there were multiple observers with no obvious connections with each other and no

discoverable reason for making up the story. (As is usual in most cases, the observers do *not* want their names in the paper, do *not* want to be paid for their information, and are *not* interested in going on lecture tours.)

OK, AGAIN. SOME *Galaxy* readers have always "believed" in UFO's. Some others may now be convinced there's *something there*, and rather a larger number are *probably convinced that I believe there's something there*.

So what are they?

Gee, I don't know. I used to say I was uninterested in UFO's because they just couldn't be intelligent critters. Why couldn't they? Because there was no place they could have come from. Earth? Not really likely. The Solar System? Unlikely a few years ago, virtually impossible now given what we've learned about the other planets.

Another star system, then. Now that *really* raises problems. How do they get here? Faster than light travel? Science fiction aside, although the General Theory of Relativity isn't anywhere near universally accepted, the Special Theory forbids faster than light travel by material objects, and gets more and more corroboration every year.

But then, so what? Do I really "believe in" the absolute limit of the speed of light? No. I accept it as a probable working hypothesis, but I firmly hope to see faster than

light (FTL) travel in my lifetime. I *hope* to see it; but I can't tell you how it will happen, and the evidence is all against me. Still, I do not rule out FTL as impossible, and thus I can't say interstellar visitors are impossible either.

This is the point at which scientists get nervous. Not only Hynek, but men like Dr. Robert Wood (BSEE, Aeronautical Engineering; Ph.D., Physics, Cornell) who is an engineering manager for a large aerospace firm he'd rather not have named in an article on UFO's; a Nobel Laureate who'd rather not be named at all; all say almost exactly the same thing when you ask, "What do you think UFO's are?"

They say: "You want some wild guesses? Hypotheses we'd be willing to defend at a scientific meeting? Science fiction? Where's this going to be published, anyway?"

Nervous indeed. Every one of them wants it clearly understood they're talking hypotheses, theories which not only may not be true, but probably aren't true; speculations, if you will.

Begin with Dr. Wood. "I'd now be willing to defend the extraterrestrial hypothesis at a AAAS or AIAA panel meeting."

Continue with Dr. Hynek: "They seem to act intelligently. I wouldn't be surprised to see proof that they're observers from another stellar system. I don't say that's what they are, or that I 'believe' in little men from outer space; but I

wouldn't be shocked to see it proved."

Continue further with Hynek. We ask how they got here, given special relativity and all that. "People want answers, but we have none to give. Yet I suspect we may be witnessing something as far beyond us as, say, television would have been beyond Plato. After all, not too many years ago the best minds in the world couldn't explain the Northern Lights. They were there. You could observe them. But we hadn't the basic science to begin to understand them. I think that's what we've got here."

In fact, it is precisely that which interests Dr. Hynek, and probably most other UFO scientists as well. Understanding UFO's may lead us to new sciences far beyond anything we have or can now even imagine. It is this which leads Hynek to hope the UFO Center he founded will be his scientific legacy.

WHAT ARE SOME WAYS the UFO's and their hypothetical inhabitants might achieve FTL? Hynek: "Perhaps they aren't material in the way we think; that they use something like television to transport themselves. Matter transportation, whether instantaneous or at very high velocity."

Robert Wood: "I haven't a clue. Yet there's been a small revival of interest in either theories lately, have you noticed? Perhaps Special Relativity doesn't hold after all.

"Also, there's the possibility of gravitational interactions. Or try this: these things are generally reported accompanied by a really overwhelming magnetic field. What is the speed of light in a billion gauss magnetic field? Whatever it is, I'm sure there's no magic here, and it may be consistent with science we are about to discover ourselves."

Hmm. These are *scientists*.

IN OTHER WORDS, although we "know" that UFO's with intelligent inhabitants can't come from our solar system and can't get here from any other, we've "known" a few other things that turned out not to be so. It hasn't been all that long since we "knew" the Law of Conservation of Matter; that atoms couldn't be split; that the Sun couldn't possibly have been burning for longer than a few thousand, uh, hundred thousand, well, we can *prove* not longer than a million years; that heavier than air craft couldn't fly, certainly couldn't fly faster than the speed of sound; that nothing could get into outer space from here, well, not very *far* out, anyway; and so forth. Now some things we "know" turn out to be true, and maybe Special Relativity will be one of them; but maybe it won't, either.

Assume the UFO's employ a technology capable of interstellar travel. What the devil are they doing here, and why don't they con-

tact us and get it over with?

Well, of course, there are a few who say they *have* made contact with *them*, but no one wants to believe the stories. Most contact stories show the aliens displaying about the same kind of interest in us as we do in, say, Tobriand Islanders; or Samoans. Perhaps somewhere there is a Library where one can check out a text entitled *Coming of Age on Terra*. Discount the contact reports and it's still not a bad hypothesis. I know of little to contradict the view that UFO's are mostly filled with graduate students doing a doctoral dissertation on pre-spaceflight cultures.

That explains why they don't make unambiguous contacts. If they did, we wouldn't be a pre-spaceflight culture any more; at the least we'd be going balls out to develop space flight. It also explains the sightings; they don't want to be seen, but once in a while they get careless, as students do.

For that matter, I can envision an extra-terrestrial persuading hiser (no sexists here; they're hermaphroditic) sponsor to let him make "a non-contaminating close encounter. After all, Honored Academician, the observers won't be *believed*! And you've said my thesis isn't original enough, but all the routine observation stuff has been mined out . . ."

Or what the hell, sometimes they get drunk and put on a show for the primitives, gambling that they won't be reported to their academic

superiors. Pasadena knows all about *that* phenomenon: in the areas around Cal Tech the residents shudder as certain times of the year approach.

But blast it all, Pournelle, surely you don't *believe* that?

No. But I wouldn't die of astonishment if it turned out to be true, either. I don't "believe in" flying saucers, in the sense that I spend much of my time acting as if Earth were being observed by interstellar graduate students in sophontology; I'm merely inclined to think it's possible, and unable to think of a good alternate theory to account for the UFO observations.

Yes. I know. The extra-terrestrial theory doesn't account for all the observations. On the other hand we don't have any theories that account for all the observations of Martian geography, either, but that doesn't stop me from playing with about half a dozen mutually exclusive hypotheses about Mars.

I do think this. If the "unimaginative" experts of Big Science can take UFO's seriously, while we won't even discuss them, then science fiction writers' reputations as speculators are in grave danger of disrepute. Not that we need contests on how many impossible things we can believe before breakfast; but can we not at least *speculate* consistent with the observations? Do we, of all people, *dare* ignore UFO's now that study of them has become respectable? ★



SMOKE! I SMELL SMOKE! From the Dungeon. . .from the Archives! My God! What is Alter-Ego up to? Burning books?

puff-puff-puff Christ, this corridor is long. . .Stairs. . .Yike, too much slope! Can't stop! **thump-thud** Damn! Luckily the lantern didn't break.

Smoke pouring out from under the dungeon door. "ALTER? WHAT'S GOING ON IN THERE?"

"Geis? Ha! I thought a little bonfire would bring you running. Open up and see."

"If you're burning anything valuable. . .anything good. . . ." Damn this sticky bolt! Too many keys—Here. There. Yes. Now the chains . . .Damn, that hinge is squealing again.

"Oh. . .you're only burning fanzines. For a few minutes there. . . ."

"Just trying to get your attention. I didn't think you'd mind a few copies of *Rune*, *Defen Droppings*, *Eternity Road*, *Knights Of The Paper Spaceship*, *Extrapolation*, *Seldon's Plan*, and the fanzine title of the year, *Sfincitor*, providing me with a bit of warmth. It gets cold down here. The fireplace hasn't worked since you trapped Santa Claus in the chimney two years ago by closing the flue and pouring three gallons of stencil correction fluid down on him. You're really evil, Geis. To my dying day I'll remember his piteous cries as he was obliterated. And you did that just because he was bringing me a Christmas gift—a new inflatable rubber girl."

"I pride myself on my good character, Alter. I can't allow you to indulge in obscene cavortings with artifacts such as that. Not any more."

"But—"

"As for Santa Claus—who noticed he was missing? His reindeer were taken by an opportunistic dogfood manufacturer and his sleigh is now in a museum in an exhibit of unsuccessful early automobiles. The lack of wheels and an engine gave the curators pause for a few moments, but they concluded that *that* was why it failed."

"Someday, Geis, you'll be unmasked, found out, revealed for the unfeeling cur you are. Aren't you curious as to why I lured you down here? I lured you down here because I want to review science fiction for you in this column."

snort—snicker "You, Alter? Review in *Galaxy*? Why, Jim Baen would throw me out on my ass and you out on your tendrils if I let you vent your opinions of current science fiction novels. Why, already he must have smoking letters and burning phone calls from outraged writers howling over your incredible outburst in the final issue of *If*. You have no couth. You have no sense of proportion. You don't play the game. You don't know when to stop."

SILENCE

"Why is that gap up there, Geis?"

"That provides room for Jim to make an interjection. He likes to do that once in a while."

"Oh. Well, anything to keep the editor happy. From what I've heard

over the years, editors have few happy moments."

"You know, Alter, this fire does make the Dungeon warm and cozy. You have my permission to throw a copy of *Fantasy Crossroads* on the flames. Now, get on with your ridiculous proposal."

"Why is it so ridiculous? I read more science fiction than you do. I notice things. I think deep. I have keen insights. Why, just last night I was thinking a prime keen insight about the way human relationships and Characterization are creeping into science fiction from the mainstream and slowly but surely polluting the precious bodily fluids of our favorite genre."

"Alter. . . dear old soul, dear old troglodyte from nineteen-hundred-thirty-nine. . . we have been trying for decades to get some decent characterization into science fiction. We have been crying to the heavens for realistic human relationships in science fiction. You are trying to tell me now this is a bad thing, just when it is finally beginning to happen? You are out of your tree, your gourd has split and you are certifiable. I'll have to call the Home and—"

"Hear me, Geis. I am issuing a Dire Warning. It is true that good characterization and true-to-life people problems are improving science fiction, but—

"I knew there had to be a but."

"But beware the siren call of Characterization—note the capital

C—and people problems. What I read lately is disturbing to my Early Warning glands. I sense the camel sliding his nose into the tent. I see a trend toward too much of a good thing. I see stories appearing in which the accent, the focus, is on character development and interpersonal trauma, while the science-fictional element is. . . is. . .”

“Short-sheeted?”

“Exactly!”

“Bullchips! As a Cassandra, Alter, you are a flop. You’re reaching. Why, the next thing I know you’ll be telling me gold will be worth \$250 an ounce by the time this gets published. Ho, ho. I am going back to bed.”

“Beware, Geis. Mark my words. Science fiction is a literature of ideas, as I read recently that Ray Bradbury once said. And science fiction is *not* a literature of human problems and personalities. It is a question of which is to be served—which is to be master—the ideas or the people.”

“There is no question in my mind, Alter. *I* am master *here*, and I order you to shut up. . . and put out that fire. It’s creeping too close to my precious collection of Tim Kirk fanzine covers.”

“I defy thee, Geis. I will say my say. If you shut me up—I’ll find another master. Maybe Andy Porter could use a good, healthy Alter-Ego. Certainly *Algol* could use some personality. Maybe I could tunnel my way out, and—”

“Okay, *okay*! I’ll give you a few more minutes.”

“I thought you would. If you lose me, Geis, no one will read a thing you write.”

“*Get on with it!*”

“As I was saying, it’s a matter, in fiction, of which fictional element is paramount, and which subservient. Lately, in science fiction, I see subtle signs that some writers are starting to use the science or sense-of-wonder element (the stuff that makes science fiction different) as decoration for their true purposes—psyche-exploration and spiritual miasma. Also, the agonies of living with other people. This is merely transplanting the mainstream into sf, Geis. Endless examinations of navels killed “serious” mainstream writing, and now that swamp has a foot in the door of science fiction. We’ve got to stop it, Geis!”

“Umm? How can a swamp get a foot in the door?”

“You know what I mean! Let fine, realistic characterizations and relationships be used to enhance, to support, to make more real and breathtaking the sense-of-wonder elements of science fiction. The science idea, the strange view, the mind-bending concepts that are the core of science fiction must always be top dog. Because human relationships are inherently limited, and so are introspections-in-depth, and “characterizations” in depth. Let *them* decorate the *idea*.”

"Finished?"

"No, I want to tell what I think of Bob Silverberg's latest, *Born With The Dead*."

shudder "No more room, no more room! We approach 1200 words now. I'm sure you couldn't review the three novellas in the book in less than 300 words. We'll pass this time, on that. Maybe next column you can—*cringe*—review a book or two."

"Is that a promise? It better be a promise, Geis!"

"Oh. . . all right! I promise; if Jim will go along—which he won't."

"Oh, boy! (Slurp.)"

Jim'll probably burn the column and demand I write a replacement—without you! But I'll let you rave if he will. You'll make yourself so ludicrous and extreme that no one will ever again believe you on any subject. You'll be in disgrace. Then I'll reclaim the column and write sage, even-tempered views and reviews. God, how I rue the day I started these Dialogues with you!"

"Geis, you poor fool. Go to bed. Keep on dreaming. The readers know who they want to hear from. Me!"

*SLAM! Lock. Lock. Bolt. Chain.

The corridor smells awful. He's getting too insubordinate. Smart-alecky. Have to put him in his place one of these days. . . . Umm. Come to think—he already is in his place!



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NOBODY HERE BUT US

SHADOWS

SAM LUNDWALL

*In the end there was
nothing he could give her. . .*

I WAS WALKING DOWN the steps of the Probal Office Building when the girl intercepted me.

I was in my early twenties then and had been Upside for more than two months, subjective time, sealed into a steel chamber with a couple of technicians whom I had come to dislike with an intensity I had not realized was possible before we finally managed to return.

But the worst of it had been the lack of feminine companionship; this one was cute—not beautiful, but anybody without a beard would

have done right then. I slowed down and stared at her. Long, flowing hair; at least ten years older than me, to judge by the lines around eyes and mouth; an old-fashioned dress at least two sizes too small. If she was trying to draw my attention she succeeded. Not that she needed any devices; like I said, my attention was very drawable just then.

“ . . . isn't that a Probal badge?” she asked, her voice tense with a nervousness I did not notice at the time. I glanced down at my lapel with the small blue-and-green badge. Very discreet. Nobody ever notices it; nobody, except this woman who was staring at it so hungrily.

“Sure,” I said. “So?”

“You . . . work in there.” She indicated the pockmarked facade.

“You can call it that. Mostly I just wait for something to happen.” I grinned at her, trying for a dazzling, captivating smile and failing miserably.

It didn't matter; her eyes never left my badge. “Have you

been . . . Upside?"

"I'm just back down," I replied. "Half an hour ago, I was sitting in a steel box without the foggiest notion of when I'd be let out." I shivered. "Look, let's get away from here. I've been Upside for two months and I want to get as far from Probal as possible. That place gives me the jitters." I started to walk down the steps and into the plaza, as diffuse images of that plaza formed in my mind. I looked away. She fell into step with me.

"Is it that bad?" she asked softly.

"Some of it." I looked down and noticed that she was still talking to my badge. Obviously it was not me that interested her, just the badge. I said, "Excuse me, but I have had a rotten time and I'm on my way somewhere. What is this about?"

She walked beside me for several minutes without saying anything. Finally; "I'm interested."

"Well, I'm not. I've had enough of that place for a long time." I was deliberately rude; I was in desperate need of a drink and female company, partially to assuage the needs of the flesh, but primarily as a means of getting away from the Probal business and the things that were trying to crawl up from my subconsciousness. This just wasn't worth it.

"A personal interest," she said, looking straight ahead.

That figured. I looked down at her, the nervous mouth, the darting

eyes. I said, "How long have you been waiting here?"

"A long time."

"And it just happened to be me?"

She nodded.

"Most people at Probal," I said, "never leave the building. 'When they have been at it long enough, they don't seem to like it outside any more. They just stay indoors like the world doesn't exist.'" I nodded at the dark building. "Not even a window. Hardly anyone ever leaves the place."

"I know," she said.

"So?"

"Sometimes," she said, "Probal people take things from Upside. I'm interested in that."

"Nobody takes anything from Upside," I said, momentarily taken aback. Nobody ever took anything from Upside, not because it wasn't possible—it was—but because everyone knew what would happen if they did. It just wasn't done.

She shrugged. "How long have you been with Probal?"

"Three years."

"Perhaps it was before your time, then."

"Never," I insisted.

She switched the subject. "Where were you going?"

"A drink somewhere." I shrugged.

"And something else."

"Let me buy you one." She smiled suddenly. "To make up for all this. We could talk about something else."

We went somewhere and had a few drinks and the kind of dinner I had been dreaming of for two solid months. She was very nice, smiling at the right places, laughing at the right places. Two months' isolation had made her pretty. Three drinks later she was ravishing. I started giving her hints about my exalted position at Probal. She ate it up, just as I had expected.

Which was curious, to say the very least, since nobody is interested in Probal and the work it does. Indeed, I had been perfectly indifferent myself before I got the job there. I knew it was some kind of government agency doing research in Probability Lines—whatever they were—and that the big, ugly building contained a large number of scientists and assorted personnel, most of them actually living there.

There was nothing secret about it—who would be interested in "Probability Lines" anyway?—and to me it was just another ugly building until I graduated and went jobless until I had got down to "P" in the yellow pages and called them up. That was a long, long time ago.

I'm not a scientist, I don't know much about the theories behind the Probability Line Search and most of what I know I don't understand. I just press my buttons and sit tight in my steel chamber while everybody's beards get longer and shaggier and the pressure builds. Most of the time it isn't too bad, of course; a

quick trip Upside and then back with the computer loaded with readings. Once in a while you might draw a two month graveyard shift, but apart from that it's ok.

One gets used to it with time, I suppose. Or rather, one learns to live with it. It's just that after a few years you don't want to face the outside world anymore, hence the windowless apartments in Probal Building. There are TV monitors in the steel chambers. You see things.

We were sitting in a back booth at the restaurant, well away from the windows, and I said, "Look, I don't know much about it and that's the truth. Not my line of job, that's for the scientists. All I know is, we step into a steel chamber and go off along a probability line somewhere, and I don't do the settings. I just go along."

"But why do you call it Upside?" she asked.

I shrugged. "I don't know. That's what it's called. We go along a probability line to a version of this world that didn't happen, but could have happened if something had been different, and then we sit there and check the place."

"Check what?"

"Damned if I know. Humidity, traces of radioactivity, visual search . . ." I shivered despite the heat. "Some of the probability worlds are nasty. Others . . . are not so bad."

"Better than here." It was a statement, not a question.

"Much better, some of them." I drank, lost in thought.

"What if you should go out through the door?" she said.

"Locked," I said. "From the outside. Impossible."

"But if you could unlock it?"

"Then out I'd go."

"So it is possible, then?"

"Sure, it is possible, no trouble at all, if . . ." I checked myself. "I don't know about that. No one ever went out, so why ask?"

"So you just sit there?"

"Yep. Sometimes for a couple of hours, sometimes for a couple of months. It all depends on conditions. I don't know why, but sometimes you can get back whenever you want, and sometimes you can't."

"Sounds primitive," she said.

"It *is* primitive. Probability lines were discovered less than ten years ago, they are still searching in the dark. Anyway, that's not my stuff. I just press buttons and watch. I rose. "Let's go somewhere."

We went to another place and had another couple of drinks. By the time we finished them she was more than ravishing. I wanted her so much it hurt. Two months of frustrated youthful masculinity screamed to be let out. I was ready to go a long way to get closer. We sat in an all-night café and she said, "How come they have never brought anything from Upside?"

I shrugged, my mind caressing her thighs.

"Perhaps they did, once," she said quietly. "When the project started."

"Perhaps," I said indifferently. "They know what happens if you do, so I guess . . ." Then I caught myself. "Look; nobody is supposed to know about that."

"About what?"

"Nothing." I should have walked out on her—but I was shy and besides, I felt I had a right to her by now; for having listened to her for so long.

"They did experiments when they started Probability Line Search," she said. "They did experiments. They brought things from Upside."

"Sure they did—then they realized what they were doing and dropped the whole thing. What do I know? I only work there!" I was beginning to get mad. "Isn't there anything else to talk about? I'm off duty, for God's sake!"

She looked down in her glass. "I'm sorry."

"Never mind." I felt ashamed. "I'm sorry I blew my top like that. But I've been cooped up in that steel chamber for two months now, looking at the same damned scene in the monitors all the time and never knowing when conditions would let us return home. Right now I just want to forget about it."

She looked straight ahead, her eyes obscured by the shadows. "Imagine what it would be like if you had been thrown into that scene

with no way back." She bit her lip. "I'm sorry," she said again.

"Let's forget about it." I slipped an arm around her waist. She stiffened momentarily, then relaxed, and even smiled. "Let's go."

"Where?"

"I have a place. We can talk there."

She said, "In the Probal Building?"

"I'm not that far gone yet," I said. "I have a place of my own a few blocks away from Probal. Nice and quiet."

She hesitated. Then, "Okay." She rose and quickly walked out. I followed her into the night, slipped an arm around her, drew her close to me. She walked stiffly, staring straight ahead.

"I don't know what you think of me," she said. "Coming on to you like this and then just talking about your job all the time. You must be tired of me by now."

"Not that tired," I said. My fingers dug into her waist. Her body was warm and full of promises, swaying against me with every step. I could hardly breathe.

We came to my place. A small, cramped room with a bed and not very much else, heavy curtains before the window. She took in the room with a quick glance. "It's small," she said.

"I'm not here often," I said. "I don't need much."

She walked up to the window. "Don't!" I said sharply.

She turned. "Don't you like the view?"

I sat heavily down on the bed. "Just keep the curtains as they are," I said. I hesitated. "Look, I have been sitting for two months, looking at TV monitors showing the plaza outside the Probal Building. It looked exactly like the plaza, it was the plaza, but a plaza on another probability line. There were . . . executions there, night and day, things you couldn't imagine."

I was scared as hell when I came out today; I knew that that was a different probability line, but I was screaming inside all the time we were crossing the plaza. This whole city scares me. A year or two from now I won't be able to go out at all, so please leave the curtains. I don't want to see what's out there."

She came over and sat down beside me, not saying anything.

"You don't understand," I ranted. "No one understands who hasn't experienced it. Look, on most lines the city looks exactly the same as the one we are in now, with only subtle differences. People dress differently, the cars look different, things like that. But sometimes people act differently; they do things you wouldn't think people could do. And sometimes there's no city at all, just meadows or woods. Once there was nothing but water—and on one line there was nothing at all, literally *nothing*; just a sort of whirling mist that tears at you even via the monitors."

"Don't you see?" I said desperately, "how can I know what is real and what is not? Every one of those probability lines are as real as the one we are in right now. After a time you don't know which line is the most real, which one you really belong to, which one you will return to when you leave the chamber. When you step out, it's just like stepping out into another line, and if you have come from one of the beautiful lines you can't stand it here, you just count the days until you can go Upside again, and all the time the ground heaves under your feet because you don't know what's reality anymore; you'll *never* know. You only know that everything scares you and you can't stand it." I leaned back in the bed, closing my eyes.

She put a cool hand on my brow and leaned against my shoulder, soft and yielding, smelling of bottled roses. I embraced her like a drowning man, dragging her down on the bed. She protested feebly but at that point I was past arguing. She resisted at first, then subsided and went through the motions.

After a time I rolled over beside her, groping in the dark for cigarettes. I felt warm, satisfied and somewhat drowsy. And now that that throbbing yearning had lost some of its edge, I also felt a bit ashamed.

She went into the bathroom for a while, then came out and started the coffee percolator. She moved silent-

ly, a dark shadow in the dusky room.

"You mad?" I asked.

She returned with the coffee, sitting down in the bed with the tray between us. She said, "No. Ten years ago, I would have been terrified, I would have screamed, cried. Now it doesn't matter much one way or the other." She peered at me, eyes gleaming dully in the darkness of her face. "You could have done it more slowly."

"Empathy with other people," I said, "is among the first things that go on this job; when you get to the point when you can't discern between what is reality and what is not, you don't care much for other people's feelings."

"I know," she said.

"You don't," I said. I sipped at the coffee. It was bitter, strong, with more than a hint of—what? I made a grimace at the vile taste. "Jesus, what's this?"

She looked at the cup. "I'm sorry," she said. You don't take it that way. She went away to the percolator and returned with a new cup, sweet and steaming. "After all these years," she said, "I still forget. Here." She handed me the cup.

I asked, sipping at the coffee, "Where do you come from?"

"You wouldn't know the place," she replied.

"Try me."

"Somewhere around here, not more than a kilometer away."

"You don't sound like you were born here," I said. "That funny accent, for instance, you sound like someone who has arrived fairly recently."

"When I was born," she said quietly, "there was no city here."

I grinned at her. "Sure," I said. "And this city is centuries old. You look younger."

"I was here ten years ago," she said, "and there was no city here then."

I suddenly felt chilly. "What do you mean?" I said.

"There was a small village here," she said. "And a few kilometers away was a kind of feudal stronghold. No cars or rock-ets, just a few dirigibles now and then. Very peaceful, very rural, very isolated."

I was conscious of a cold, growing spot in my stomach. "It sounds like something out of a fairy tale," I said.

"You wouldn't understand," she said tiredly, as if she had been telling and retelling this tale until the words were spoken of their own free will. "I was taken from there."

"You're joking. I don't—how?"

"You know. The chamber."

I sat up so violently I almost spilled the coffee into my lap. "You're crazy," I told her. "Nothing and nobody can be taken away from one probability line to another. It can't be done!"

"That's what everybody tells me," she said quietly. "I have been waiting here for ten years, and everybody tells me it is impossible. They told me that in the Probal Building when I was brought here, and when I talk to the men who come out from there they all tell me the same thing." She looked away. "I have been asking everyone for ten years," she said. "I have been waiting outside that building for ten years, and everyone tells me the same thing."

"What do you want?"

"To go back."

SHE STAYED TWO DAYS. She was cool and remote but very obliging. She did not talk much about that fantasy of hers after the first night, but I wondered. The second day I went to the Probal librarian and asked him. He seemed uncomfortable and said he didn't know. I checked on my own, and found that the relevant data dossiers were restricted, off limits for the likes of me. When I returned, she smiled tiredly and wrote down a code number for me.

"I got this once," she said, "from a computer technician who had access to all the classified material. He said I wouldn't have much use for it anyway. But this is where I came from."

"I can't help you," I said.

"I know," she said. "I didn't really believe you could. I never

hope much these days; I just wait and wait and go through the motions, but I don't really hope anymore."

"I'm just a technician," I said. "I press the buttons and go Upside and handle the machinery and look at the monitors; that's all I do. I'm just a small cog in the machinery, that's all."

"I know," she said. "I'm sorry I've bothered you."

Next day she was gone. A few weeks later I spoke to a guy at the Probal office about her.

"Sure," he said, "I've seen her. Everyone here has seen her at least once. Always waits outside. She's crazy, thinks she comes from one of the probability lines and wants to go back. There's lots of crazy people in the world. Forget her."

"She said it happened ten years ago," I said. "That could have been when the project started and no one knew what would happen if something were taken from its probability line. They know now, so they must have found out one way or another."

He shrugged. "What do I know? Anyway, even if it's true, she can't go back now."

Never. There is some kind of mathematics to explain that, but I'm not a mathematician. All I know is that the door in the chamber is locked from the outside while it is Upside. Under no circumstances whatever must anything be taken

from or added to . . .

Someone must have found out the hard way.

I would see her now and then, standing on the steps of Probal Building, waiting without any real hope while her shoulders sank and her face hardened into frozen lines. The first years, some of the younger technicians picked her up when on leave and took her to bed. She did anything for the ones who were willing to talk to her. But then she wasn't so pretty anymore and they hurried past her, looking the other way.

By then I seldom went out anymore; the city scared me, everything outside the building scared me. I thought of probability lines more beautiful and more horrible than any man's imagination, I saw the ever-changing worlds in the monitors, all of them as real or as unreal as my own, and it frightened me.

I finally moved into a windowless flat in the building. I never went out again.

Many years later I came across the piece of paper with the code number of her probability line and during a test run I fed the number into the line selector and went Upside.

I leaned down over the monitor and looked into the whirling emptiness of the world that had been hers before she was taken from it and I saw nothing.

Nothing.

★



GALAXY BOOKSHELF

Spider Robinson

EFFECTIVE WITH this issue, I am the new official reviewer for *Galaxy*. Please note the word: "reviewer," not "critic." A critic tells you what you ought to like—I hope to tell you what I think you will like, and what you won't. All across the world there are folks standing in front of a grossly overstuffed science-fiction section in their local bookstore, with a buck ninety-five burning a hole in their pocket and Sturgeon's Law ("ninety percent of everything is crap") burning in their hearts. I'd like to try and help you put your buck ninety-five or whatever, in a good investment.

Now this, of course, puts me in one hell of a position. I write this stuff for a living, see, and I hang out with other guys that do—the same guys whose books I'm either going to be praising or knocking, and writers are not noted for small egos. As of now I happen not to have really hated any books by

people I know, but it's sure and hell bound to happen soon. So if any writers are listening, please be assured that I *can* love you and hate your latest book (got that, Harlan?). And for the rest of you, I promise to do my damndest to give you my honest opinion as to the relative worth of the books I review.

Which is not to say that I'm going chasing after the mythical "objectivity." I've got my own set of prejudices as to what is and isn't good science fiction, and I have no intention of trying to list them—you'll just have to pay attention and deduce them yourselves. The best I can do is try to be consistent about 'em, and to try and consciously remember and reflect what I conceive to be the prejudices of *you*—the hypothetical and probably mythical Average Reader. If you think I'm blowing it, write Baen a nasty letter. Enough of this; on with the show.

Watership Down, Richard Adams, Avon, \$2.25 softcover, 478 pp.

The Princess Bride, William Goldman, Ballantine, \$1.95 soft, 283 pp.

The Stone That Never Came Down, John Brunner, DAW, \$1.25, 191 pp.

The R-Master, Gordon R. Dickson, DAW \$1.25 soft, 157 pp.

The Big Black Mark, A. Bertram Chandler, DAW \$1.25 soft, 224 pp.

The Book of Saberhagen, Fred Saberhagen, DAW, \$1.25, 172 pp.

The Gray Prince, Jack Vance, Bobbs-Merrill, \$6.25 hardcover, 191 pp.

Korg 70,000 B.C. ABC-TV.

FIRST, THE ONE that got all the noise: Richard Adams's remarkable *Watership Down* is nowhere near worthy of the three or four pages of incredible critical reviews with which Avon prefaces the paperback version—it is not, as everyone from Bucky Fuller to the *Times* (both *Timeses*) claims, the greatest work of art to emerge from modern man. It's only one of the best books I've read in a helluva long time.

Rare indeed is the writer who satisfies as both a wordsmith and a storyteller, but Adams pulls it off. The book reads like a cross between Tolkien, Euell Gibbons and Kenneth Grahame (*Wind in the Willows*, twit), and avoids the weaknesses of all three. It concerns a race of non-humans in a near-Utopia, one of whom is a clairvoyant. Having had a vision of some inexplicable doom lurking on the horizon, he

persuades a handful of friends to leave their home and undertake a quest for a new and safer one. Along the way the group meets trial, battle and sudden death. Sounds pretty standard, huh? Here's the kicker: the non-humans are terrestrial lapines—rabbits. The prophesied doom is the bulldozing of their warren for a housing development, and the quest covers maybe ten miles.

Please don't make the same mistake I did—ignore all the rave reviews, forgot that the damned thing was a number one bestseller for nearly a year. If you go into it expecting the New Tolkien you will, as I did, spend the first two hundred pages being disgruntled. What it is, is good solid writing of the evocative school, that is, the "paint 'em a picture" kind in which you forgive the fact that every little brush stroke shows, because they're such *fine* brush-strokes. Generally I prefer the sort of background description that allows me to use my own imagination, but in this case I have to admit that Adams' is richer and better informed. He obviously knows rabbits as well as he knows the area in which these rabbits live, and he anthropomorphizes them only as much as he has to in order to give us a comprehensible story. A story, I might add, with all the adventure, excitement and internal consistency you could ask for, with a thoroughly satisfying conclusion.

Second, the one that should have gotten all the noise, and didn't:

I'm so excited by *The Princess Bride* that I usually become incoherent when I attempt to talk about it. Much as I like *Watership*, I'd infinitely prefer to give this alternately thrilling and hilarious adventure-fantasy my vote for the Hugo and/or the Tolkien Memorial Award. Except I can't—Goldman's book, like Adams's, is ineligible, having appeared in hardcover a couple of years back and sunk without a ripple. Why the hell is beyond me, unless it's antimainstream phobia.

Goldman is, of course, the man who gave us *Butch Cassidy and the Sundance Kid*, not to mention *Boys and Girls Together* and a host of other superb mainstream novels, plays and movies, as well as an astonishingly good analysis of Broadway, *The Season*. Make no mistake, this man can write until your nose bleeds and your ears drip wax: he is A Pro. And *Bride* is, to my mind, not only the best thing he ever wrote, but the best sword & sorcery adventure that ever came down the pike—I haven't been so excited about a book since I finished *Stand On Zanzibar* (which it in no way resembles). The subtitle that is omitted in the paperback version promises "fencing, fighting, torture, poison, true love, hate, revenge, giants, hunters, bad men, good men, beautifullest ladies, snakes, spiders, beasts of all natures, pain, death, brave men, coward men, strongest men, chases, escapes, lies, truths, passion and miracles."

Friends, that ain't the half of it.

The book is set, like a diamond in a gold brooch, within a delightful hoax: Goldman alleges that *Bride* was in fact written by "the famous Florinese writer Simon Morganstern," and that Goldman himself is only the abridger, who threw out Morganstern's political and social satire to give you "the good parts version." He claims that his Florinese father read the good parts to him while he was recovering from pneumonia at the age of ten, converting him in one stroke from a sports-type to a "novel-holic." God knows why Goldman uses this device—but by Jesus it *could* have happened that way. If you know a kid who hates to read, buy him or her *The Princess Bride* and stand clear.

If the book ever gets the recognition it deserves, it will doubtless be labeled "a fairy tale for adults," but that is wrong. It is the type of fairy tale we *ought* to be reading to our kids—and aren't—because it insists on one overriding message: that Life may be full of adventure and wonder and excitement and glory, but what it *ain't* is Fair.

Oh yeah, I nearly forgot—the book is funny as hell too.

OKAY, ENOUGH of this mainstream gobbidge—back to good ol' Hardcore (how come the mainstream produces *Bride* and *Watership*, and the best True Blue-dom has to offer these days is *Nine*

Princes In I'mbored?). John Brunner's *The Stone That Never Came Down* is one dandy piece of work. It manages to neatly avoid every one of the potholes that his *Shockwave Rider* sprained its ankles in, and emerges as one of John's best. As didactic as *Rider* in its way, it never out-and-out lectures without a good dramatic foundation, and its characters live and breathe.

The setting is England in the near future; the pendulum of morality has swung back with a vengeance, and the Godheads, hoodlum religious fanatics, go about the city extorting alms, trashing bars and brothels, and beating the stew out of the ungodly with wooden crosses. They get away with it because government is under the influence of the Campaign Against Moral Pollution (love those acronyms of yours, John), a powerful lobby indeed. Power, food and other systems are collapsing under gross mismanagement; there's civil insurrection in Glasgow; and on the horizon the seeds of World War III are inexorably sprouting in, of all places, Italy.

The only hope is a mysterious new drug called VC, which confers—no, *imposes*—eidetic memory, forcing one to remember and integrate all the data he's ever acquired. It prohibits what Brunner calls "selective inattention," the tendency of humans to forget or ignore what they'd rather—on which Brunner blames much of the world's ills. Motivated by, and

armed with, this new discovery, a handful of men and women attempt to head off the war they now cannot help but see coming, by dosing key people with VC in a race against time.

Now, the corollary to the moral imperative that grew out of the Psychedelic Age ("Thou shalt not prevent thy brother from altering his consciousness.") is that thou shalt not alter thy brother's consciousness without his consent, and I for one can imagine no greater crime (including murder), good intentions be go to hell. And yet, dammit, Brunner presents an excellent case for doing just that thing. I'm not certain he's convinced me, but I'm sure going to be thinking about it for some time.

Altogether a fine story, that alternately curdles the blood and warms the heart that pumps it.

AND HERE, on the other hand, we have Gordy Dickson with another drug, and the message that increased intelligence is *not* The Answer.

Gordy by now has polished to perfection the technique of stating a fascinating premise, giving you about half a chapter to absorb it, and then punching you in the head repeatedly until the breath is completely knocked out of you. You guessed it—he's done it again.

And he shouldn't have been able to. The plot of *The R-Master*—the world has seemingly achieved

Utopia but is in fact in dangerous stagnation—is almost as old as boy-meets-girl. But then the “as an outsider what do you think of the human race?” gag had long white hair when Heinlein used it for *Stranger In A Strange Land*, and look how that turned out. To the base plot Gordy adds the premise that there is a drug called R-47 which has four possible effects: it may raise or lower your I.Q. a few trifling points, it may do nothing, or it may make you either a supergenius or a hopeless moron. With that he’s off and running, with surprise after surprise.

R-Master is not one of Gordy’s major works; some of the characterization is sketchy, some questions are unanswered, and I found the ending just a bit unsatisfying—but it is good solid action-packed stuff, and it made me think. Particularly when read concurrently with Brunner’s book.

IF YOU DIDN’T know that A. Bertram Chandler is an Australian nationalist and a Horatio Hornblower-freak, *The Big Black Mark* will make it abundantly clear. It fills in the missing link in the career of John Grimes (who, like Lord Nelson, is loosely based on the life of Hornblower), the man who’s been paying for Chandler’s groceries for many years now. Grime’s rise from ensign in the Galactic Federation fleet to admiral of the Rim Worlds fleet has been

amply chronicled in hundreds of thousands of words of often excellent SF—but until now we never knew exactly what caused him to change his loyalties from Federation to Rim.

Truth to tell, I’m just a little disappointed to learn—but I can’t explain why without giving away too many surprises. Suffice it to hint that *Black Mark* borrows just a bit too heavily from both Nordhoff & Hall and Herman Wouk, if you get my galactic drift. True-blue Grimes fans should be satisfied, but I found it pat in spots, contrived in others, and a little too reminiscent of some of the worst Star Trek episodes (the “Earth culture transplanted bodily to the stars” type), though eminently readable.

But then I liked the drunken Irish telepath—I’m a bit of a nationalist at heart too.

JACK VANCE’S *The Gray Prince* bothers the hell out of me. It has an excellent theme, with a tomato-surprise ending that defies guessing, and involves some moral questions that are more and more relevant these days. But you have to wade through some god-awful stuff to get there.

The writing style is of a pedantic, top-heavy sort which the dust-jacket calls “evocative” and I call Byzantine—it kept me thumbing my dictionary and increased my vocabulary immensely, but it didn’t arouse my interest: even the fight

scenes were stately. I pressed on, and discovered that there seem to be four or five protagonists, with whom Vance plays Musical Viewpoints at random and without warning—and none of them is The Gray Prince, who turns out to be a very minor character and a humbug in the bargain. Finally, I was horribly annoyed by Vance's heavy use of footnotes to explain plot essentials rather than working them into the story*—and worse, by the fact that *non-essential* footnotes often held more potential interest than the text, and were invariably abandoned. When the interruptions are more interesting than the matter at hand, something is badly wrong.

All in all, *Prince* reads like a history professor's dry and academic account of what one can dimly see must have been a rousing era. But if you read only the prologue and the last two chapters, you'll find some thoughtful and stimulating moral philosophy. It's the middle hundred and sixty-four pages that hung me up.

IT'S HARD TO WRITE meaningfully about a non-theme short-story collection at any great length. Fred Saberhagen is a fine writer, largely and correctly famous for his Berserker cycle, concerning the war between mankind and an unliving robot culture programmed by its centuries-dead Masters with a

**actually I just hate footnotes on principle.*

single overriding kamikaze directive: to destroy all sentient organic life in the universe. But only two of the ten tales in *The Book of Saberhagen* are about the Berserkers (two of the best in the series, incidentally).

The non-Berserker stories vary from fair to excellent, touching all bases in between. "Deep Space" is an old favorite of mine—but don't read Fred's introduction to it until after you've read the story, or you'll spoil the ending (by which I've probably ensured that you'll do just that, but what can you do?). "Starsong" is particularly outstanding, a very short story that somehow manages to leave you with the impression that you've just read a novelette—a trick I wish I could pull off considering that they pay us by the word in this racket. *Book of* is recommended for all Saberhagen fans, and especially for those who don't know him yet.

IF THEY CAN GIVE Hugos for "dramatic" SF, why can't I review it? *Somebody* should have warned me about *Westworld*, py yiminy, and only masochists and social-hypochondriacs read newspapers these days.

Okay, then—here goes. By now everybody's probably gotten the word that the *Star Trek* cartoon series is almost as good as the original, and in some ways better—spectacular visuals are cheaper to produce, Kirk looks less wooden,

and so on—but if I know fen [pl. of fan—Ed.], it'll take more than one goodie (and a recycled one at that) to get you out of bed on a Sunday morning. *Land of the Lost*, with scripts by the likes of Ben Nova, Larry Niven, Robert Silverberg and David Gerrold, ought to have filled the bill, but mediocre directing, kindergarten special effects and ghastly acting can strangle even the best writing. One Pro tells me he keeps the pseudonym "Michael Rodenta" handy for just such occasions.

But there turns out to be after all a superb Sunday morning show, like *Land of The Lost* non-cartoon, which has been destroying my lifelong habit of sloth for weeks now, with no relief in sight. *Korg 70,000 B.C.* is its unlikely title, and Fred Freiberger is the Story Editor.

The show concerns itself with the problems of moral and social development facing a small band of Neanderthals led by a gent named Korg. The scripts are good enough to remind me of Heinlein's juveniles, the direction and photography are good, and the actors are just great. I mean, it's only a kids' show, you shouldn't expect perfection—but I wish to hell they'd had shows like this when I was a kid. I hope it hasn't been killed for being too good by the time you read this; check your T.V. listings for the time in your viewing area.

Okay, I confess—I've secretly got the hots for Korg's old lady. ★

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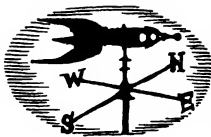
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DIRECTIONS

Dear Mr. Baen:

March GALAXY was a fine issue. The Tuttle story was good 1984 work and the Robinson excellent; the Darnay was interesting, and the latest installment of *The Perils of Corwin* ends with an appropriately intriguing cliffhanger.

It's the non-fiction that spurs me to write, though: Subscribe? The newsstand may cost more, but I save frustration.

Your editorial—true, though you're too sanguine about the importance of reversible male sterilization. It will have little effect on the main world-wide problem, which is simply a desire for large families.

I don't always agree with Pournellian opinions, though I've found his articles very interesting lately, but his missile-eating laser piece has just about sold me. Well done.

(Incidentally, a disagreement: he said last month that the important, basic part of Velikovsky's theories was the prehistoric catastrophe, not the Venus-comet schlock. Well, important to whom? To one interested in digging fact out of the schlock, maybe. But judging from ads for *WORLDS IN COLLISION*, the pro-V. article in *Analog*, and so on, that is *not* what matters to his followers. What matters is that (1) the causes for those disasters were events that The Science Establishment can't handle, and which thus discredit it, and (2) the Bible is literally true. Both -14 karat drek. These aspects are also

the most important ones to V.'s attackers, judging from what gets dumped on most. And when the Good Doctor (not *your* Good Doctor) claims, in effect, that these are also the most important to V. himself, I'm inclined to back his judgement over Pournelle's. In other words—intent on seeing that the baby's not thrown out with the bathwater, Dr. Pournelle forgets that most of V.'s impact comes from the bathwater.)

The del Rey piece contains much good sense, but also some overly broad statements. I'd just like to note one—"a voluntary ghetto is a meaningless noise"—because it's quite false and so makes his first three pages largely irrelevant. 'Ghetto' *can* be used in a sense like 'an in-group that builds walls around itself'; such a use is sanctioned by Webster's Third, and I recently met it in a 1935 book; and most important, it *is* so used by many (most?) who talk of an 'SF ghetto'. It's not fair to ignore what people clearly *do* mean for what (you think) their words *should* mean; when the facts are against you, it's worse.

Yours truly,
Philip M. Cohen

310 Stewart Ave
Ithaca NY 14850

PS. I've learned my tastes and Sturgeon's are parsecs apart, but I bet a lot of people who haven't learned similar lessons will really be disappointed by *DHALGREN*.

Subscription fulfillment is being returned to Boulder, Colorado in the near future, at which time service will become even prompter and more reliable than it is now. (For some reason subs. have increased enormously in the last year or so . . .) I think what annoys Lester (& me too!) about the 'ghetto-izing' of sf is the semantic end-run which all too often follows. The term is introduced into discourse in the sense of "voluntary in-group" and about three paragraphs later the writer starts using words like 'escape'; it's also not fair for a writer to ignore the previous meanings of his own words!

Dear Mr. Baen;

I have just finished reading Lester del Rey's article in the March issue of GALAXY. I must admit that I heartily agree with the points he made, particularly in reference to science fiction as escapist literature. I, like many others, have long accepted the idea of science fiction being primarily escapist without really considering what I was "escaping" to. Any literature that demands that the reader enter and accept many new ways of looking at the world, as Mr. del Rey says, is far from being escapist.

I very much enjoyed Phyllis Eisenstein's "Tree of Life". I would like to say that it "sort of grew on me," but I won't, as I abhor bad puns. Keep up the good work!

Best Wishes,
Michael A. Banks

P.O. Box 312
Milford, OH 45150

I, too, abhor puns—especially those of the grewsome variety.

Dear Mr. Baen,

I deeply regret that Mr Del Rey took my parody of "Golden Age" sf as a personal slam. ["The Siren Song of Academe," March '75 Galaxy.—Ed.] I never read anything of Mr Del Rey's involving lean bronzed captains, squeaking maidens, and Gloobian Slime Monsters. Néver. In fact I made up the Slime Monsters myself.

Mr Del Rey writes: "...the mouthings of the crypto-Marxists (it is a purely Marxist doctrine that all art must serve other functions than 'mere' art—this is an idea foreign to all previous conceptions of artistic merit.). . ."

"It is a purely Marxist doctrine. . . ." It is? Is Mr Del Rey maybe confusing Marx with Stalin? A bit like confusing Jefferson with Nixon.

"This is an idea foreign to all previous conceptions. . . ." It is? Well, look, may I drag in the Palace of Versailles for a minute. Most people who see it, and its gardens, find it a stunning work of art. Who built it, and why? Louis XIV had it built, as a deliberately overwhelming symbol or statement of

the grandeur and power concentrated in the person of the owner, the King by Divine Right, himself. He knew that the better the art, the more effective the statement; he had taste, the jerk, and hired only the best artists. Or take a rather subtler example: Handel's *Messiah*. Is the *Messiah* art for art's sake? I think Handel would have said it was art used in the service of God. Is that "crypto-Marxism"?

My impression is, in fact, that art for art's sake, art conceived of as free of all obligation except to itself, is the recent idea. That art is an action done in service to, or in homage to, or as a function of, some intense belief or great idea, is the older, and probably still more general assumption. To confuse that idea of art with theories of ideological manipulation is disastrous; you end up with Propaganda here, Escapism there—and Art nowhere at all.

Finally, after stating that there never was and is not now such a thing as an sf ghetto, Mr Del Rey tells us crypto-academic types, "Get out of my ghetto!" Only in sf can you get ordered to get out of a non-existent ghetto. Science Fiction, I love you.

Yours faithfully,
Ursula K. Le Guin

I suspect that Lester (he may have somewhat more to say on this later) did not so much take "Escape Routes" [Dec. '74 Galaxy] as a personal slam as an editorial springboard for expressing his own, divergent views. . . . Personally I agree with you that sf may indeed serve a didactic role—and I agree with Lester that it need not serve such a purpose, or any other than its own. And sf loves you right back.

Dear Mr. Baen,

Whatever happened to Jerry Pournelle's great scoop in the January issue? You know, the one about black holes. Well, I haven't found anything about the existence of "tiny" black holes being disproved anywhere. I thought that by now other magazines would have caught up and heard about it. Can you please clear this problem up. Are there small

black holes, or not?

Sincerely yours,
Dorian Winterfield

P.S. I have recently read *Black Holes* by John Taylor. Does the disproof of small black holes mean that black holes can't be used for all those fantastic things like time travel, switching universes, etc.?

Jerry's reply:

There was a lengthy article on the subject of quantum black holes in the January issue of *SCIENTIFIC AMERICAN*; thus *GALAXY*, being on the stands a little before S.A., did indeed have a beat, although not perhaps as long a lead time one as I would have liked.

I don't expect to see much in the scientific journals for another couple of months; their lead times are very long, 6 months to a year.

Mr. Taylor's rather mystical treatment of black holes is indeed interesting. As to using black holes for time travel and switching universes, as I stated in my *GALAXY* articles the whole thing is not only theoretical, but also requires that you find a hole large enough to go through without being squashed by the very high gravity near the singularity. That turns out to be a hole about the size of a galaxy; stellar sized holes just don't seem to be usable as a means of transport. What would come out in an alternate universe (assuming the purely mathematical exercise that leads us to suspect the existence of the alternate universe in the first place) would be a stream of atomic particles, not well organized; I cannot see how anyone would survive the trip.

But then I've been wrong in the past.

Very small sized black holes wouldn't have been useful for time or space travel to begin with, so Hawking's work disproving tiny holes hasn't changed anything in that department.

Thank you again for writing.

Best regards,
Jerry Pournelle, Ph.D

Dear Editor

I found Ms. Henye Meyer's letter (March issue) most fascinating and I admit to feeling

a certain sense of kinship with her "arrogant" husband who apparently feels Science Fiction to be not quite as great an Art form as many SF writers claim. I would in fact tend to agree with him that most SF is not exactly great literature and a good deal is suitable only for reading on tedious train trips.

Ms Meyer, however, does not seem to realize that the fact that a piece of great SF may be of literary merit does not necessarily detract from its absolute value. "Finnegan's Wake" is great literature but it has little impact on those who read it and its absolute value to humanity is small. In contrast Doc Smith's "Lensman" series is in literary terms quite clearly tripe (a misnomer for bad writing as tripe tastes delicious!) but with its tremendous impact on its readers and with the pleasure it has given to millions it must be rated highly in terms of absolute value. Occasionally a book surfaces with literary and absolute value—H.G. Wells' "The Time Machine"—but the two do not necessarily coincide and the genre of SF though it can exist happily without literary values cannot exist without absolute values.

SF needs committed readers who enjoy every word they read and who live to some extent in the fantasies they encounter. The popularity of costume parties at SF conventions, the existence of "Trekkies" and the prevalence of Fanzines are not accidents, they merely express the will of the people. Keep on writing Ms. Meyer, don't mind if your husband thinks it's trash in literary terms. Keep in mind that the basic value of an SF story is the pleasure it gives the reader. Literary elegance is merely "gilding refined gold".

Sincerely yours,
Dr. A. Meyer

Knowing better than to insert himself between husband and wife, the Editor maintains a discrete silence!

Dear Editor,

I was compelled to write this letter about your editorial in the March issue. You seem

to think that we have a clear path and that we will soon be free of the threat of nuclear attack or of overpopulation. You show the attitude of many people; faith in "American know-how! You put an awful lot of faith in things which are "virtual certainties." That makes me recall something about chickens and eggs.

You claim that people know all about our problems, this is so far from the truth it is sad. Sad because we *do* have know-how and the means to solve our problems, but people can never get together on anything. It always seems to be our emotions which stop us from getting together and solving our problems; greed, hate, fear, and of course pride. All too often our knowledge is used to find ways to kill people, unfortunately I do not see any reason why we would suddenly change now.

Perhaps what our sf writers are trying to tell us is that we are not God's Chosen People, that we do not always have to solve all our problems and that we are not as great as we think we are.

Maybe if we stopped reaching for our "Rightful Place" we would look down and see how little we have progressed from the caves.

Yours truly,
Ed Sloma

144 Main St.
Bing, N.Y. 13905

No, what I said was that we do indeed have a fair chance of survival-in-style—if and only if we behave with a modicum of intelligence—and that the Galaxy Readership wants, deserves, and shall have non-nightmarish stories replete with plots and realistic resolutions thereof. And it's not our distance from the caves (though we've come a long way, baby) that's at issue, but what we've brought with us—like our predilection for strong, numb-skulled leaders whose response to a difficult problem is to pick up a club.

Dear Mr. Baen,

While in many ways I agree with Alter-Ego's complaints in your Feb. '75 issue (his

complaints about SF, of course. I wouldn't know about his other problems.), I also agree with your insert. You *do* publish stories that are very good to read. For this reason I am going to subscribe to *Galaxy* (Worlds of If).

I also wanted to tell you how much I enjoyed Dr. Pourmelle's article. Perhaps you can justify Archaeology as the feature article occasionally on the basis of time travel. For example, if I'd known more about the *Icelandic Sagas*, I would have enjoyed Harry Harrison's "The Technicolor Time Machine" even more. I imagine the way he fit the story to the sagas was really clever if I knew enough to appreciate it.

I hope your magazine prospers and continues to print stories that are good to read.

Sincerely,
Marjorie Task

4944 Queensbury Rd.
Dayton, OH 45424

Take that, Alter!

Dear Sirs,

Thanks for giving GALAXY a new personality. The emphasis now seems to lie on good solid writing and each issue is well rounded now. Of your artists I especially like Steve Fabian—get him to do some covers please. I also like an occasional astronomical cover—so please keep David Hardy, too. He's the best man in the field now. Authors I would like to read (go on reading) in GALAXY are (among others): Arthur Clarke, Jack Williamson, Fred Pohl, Colin Kapp, George R.R. Martin, Leigh Brackett, Poul Anderson, Ursula LeGuin, Fritz Leiber. . .

Well, keep it up, Mr. Baen—you're steadily winning new friends.

All the best,
Uwe Luserke

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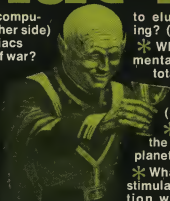
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